

EA #348

Aton River and Bayous Creek,
Bony and Black, LA.

Advanced maintenance Test
Sections in Bar Channel and
Sec. 404 and Sec. 103 disposal
sites on West side of
Channel

The following short form 404(b)(1) evaluation follows the format designed by the Office of the Chief of Engineers, (OCE). As a measure to avoid unnecessary paperwork and to streamline regulation procedures while fulfilling the spirit and intent of environmental statutes, New Orleans District is using this format for all proposed project elements requiring 404 evaluation, but involving no adverse significant impacts.

PROJECT DESCRIPTION: Material dredged from the Atchafalaya River Bar Channel would be placed within the designated shallow open water disposal site pursuant to Section 404(b)(1) of the CWA. An additional ODMDS would be selected pursuant to Section 103(b) of the MPRSA. The proposed Section 404(b)(1) disposal site is rectangular-shaped, approx. 3.0 miles long, parallel to the Atchafalaya River bar channel and on the ~~west~~ side or right-descending bank. The site encompasses approx. 200 acres of shallow open water. The inner limit of the proposed Sect. 404 disposal site is approx. 2640 feet from the centerline of the navigation channel. Dredged material would be placed into the proposed disposal site unconfined and in a manner conducive to creation of islands for colonial nesting seabirds. The initial height of the dredged material disposal mounds would be no higher than +8.0 feet MLG. The optimum final grade area of the created islands would range from 5 to 25 acres depending on the particular assemblage of birds for which an island is created. The subaerial edges of the created islands would be at least 1000 feet apart. From 400,000 to 2,000,000 cubic yards of dredged material would be placed annually into the proposed Section 404 disposal site.

Five advance maintenance test sections would be constructed in the bar channel of the Atchafalaya River between C/L Sta. 716+00 and C/L Sta. 1086+00. The test sections would be constructed to a depth of -28 feet MLG, 4 feet below the currently maintained depth of -24 feet MLG and 2000 feet apart. Test sections would be 375 feet wide, slightly narrower than the authorized width of the navigation channel, to allow continuous side slopes of about 1H:3V to avoid de-stabilizing the slopes. Approximately 1,680,000 cubic yards of dredged material would be removed during construction of the proposed advanced maintenance test sections and would be placed into proposed disposal sites on the west or right-descending bank of the channel.

Maintenance dredging of the Atchafalaya River bar channel is required on an annual basis and only dredged material from the navigation channel would be disposed into the proposed Section 404 disposal site and into the proposed ODMDS. Dredged material would be removed using hydraulic cutterhead pipeline dredges and/or hopper dredges. Cutterhead dredges would discharge dredged material in the proposed Section 404 disposal site and into the proposed ODMDS as a non-cohesive slurry through a floating pipeline. Hopper dredges would perform agitation dredging and would haul dredged material to the ODMDS. The dredged material generally is comprised of silty-clay with traces of sand.

1. Review of Compliance (230.10 (a)-(d)).

Preliminary¹

Final²

A review of this project indicates that:

a. The discharge represents the least environmentally damaging practicable alternative and if in a special aquatic site, the activity associated with the discharge must have direct access or proximity to, or be located in the aquatic ecosystem to fulfill its basic purpose (if no, see section 2 and information gathered for environmental assessment alternative);

☒ YES NO*

☒ YES NO

b. The activity does not appear to: (1) violate applicable state water quality standards or effluent standards prohibited under Section 307 of the Clean Water Act; (2) jeopardize the existence of Federally listed endangered or threatened species or their habitat; and (3) violate requirements of any Federally designated marine sanctuary (if no, see section 2b and check responses from resource and water quality certifying agencies);

FOR (1) ONLY

☐ YES NO*

☒ YES NO

c. The activity will not cause or contribute to significant degradation of waters of the United States including adverse effects on human health, life stages of organisms dependent on the aquatic ecosystem, ecosystem diversity, productivity and stability, and recreational, esthetic, and economic values (if no, see section 2);

☒ YES NO*

☒ YES NO

d. Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem (if no, see section 5).

☒ YES NO*

☒ YES NO

N/A Not Significant Significant*

2. Technical Evaluation Factors (Subparts C-F).

a. Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C).

- (1) Substrate impacts.
- (2) Suspended particulates/turbidity impacts.
- (3) Water column impacts.
- (4) Alteration of current patterns and water circulation.
- (5) Alteration of normal water fluctuations/hydroperiod.
- (6) Alteration of salinity gradients.

		X ^a
	x	
	X	
		X ^a
	X	
	X	

b. Biological Characteristics of the Aquatic Ecosystem (Subpart D).

- (1) Effect on threatened/endangered species
- (2) Effect on the aquatic food web.
- (3) Effect on other wildlife (mammals, birds, reptiles, and amphibians).

X		
	X	
	X	

c. Special Aquatic Sites (Subpart E).

- (1) Sanctuaries and refuges.
- (2) Wetlands.
- (3) Mud flats.
- (4) Vegetated shallows.
- (5) Coral reefs.
- (6) Riffle and pool complexes.

X		
	X	
X		
X		
X		
X		

d. Human Use Characteristics (Subpart F).

- (1) Effects on municipal and private water supplies.
- (2) Recreational and commercial fisheries impacts.
- (3) Effects on water-related recreation.
- (4) Esthetic impacts.
- (5) Effects on parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves.

X		
	X	
	X	
	X	
	X	

Remarks. Where a check is placed under the significant category, preparer has attached explanation.

3. Evaluation of Dredged or Fill Material (Subpart G).³

a. The following information has been considered in evaluating the biological availability of possible contaminants in dredged or fill material.

- | | |
|---|-------------------|
| (1) Physical characteristics | <u> X </u> |
| (2) Hydrography in relation to known or anticipated sources of contaminants | <u> </u> |
| (3) Results from previous testing of the material or similar material in the vicinity of the project | <u> X </u> |
| (4) Known, significant sources of persistent pesticides from land runoff or percolation | <u> </u> |
| (5) Spill records for petroleum products or designated (Section 311 of CWA) hazardous substances | <u> X </u> |
| (6) Other public records of significant introduction of contaminants from industries, municipalities, or other sources | <u> </u> |
| (7) Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities | <u> </u> |
| (8) Other sources (specify) ..see references below..... | <u> X </u> |

Appropriate references:

1. "LDEQ Environmental Regulatory Code. Dated 1997."
2. "State of Louisiana, Water Quality Management Plan, Volume 5, Part B, Water Quality Inventory, 1996."
3. CERLIS.
4. U.S. Coast Guard Spill Records.
5. Water, Sediment and Elutriate Samples collected April 15, 2002 by Anacon, Inc. for the NOD.

b. An evaluation of the appropriate information in 3a above indicates that there is reason to believe the proposed dredge or fill material is not a carrier of contaminants, or the material meets the testing exclusion criteria.

☒ YES

☐ NO*

4. Disposal Site Delineation (230.11(f)).

a. The following factors, as appropriate, have been considered in evaluating the disposal site.

- | | |
|--|-------------------|
| (1) Depth of water at disposal site | <u> X </u> |
| (2) Current velocity, direction, and variability at disposal site | <u> X </u> |
| (3) Degree of turbulence | <u> X </u> |
| (4) Water column stratification | <u> </u> |
| (5) Discharge vessel speed and direction | <u> </u> |
| (6) Rate of discharge | <u> </u> |
| (7) Dredged material characteristics (constituents, amount, and type of material, settling velocities) | <u> X </u> |
| (8) Number of discharges per unit of time | <u> </u> |
| (9) Other factors affecting rates and patterns of mixing (specify) | <u> </u> |

Appropriate references:

Same as 3 (a)

404(b)(1)

*A negative, significant, or unknown response indicates that the project may not be in compliance with the Section 404(b)(1) Guidelines.

¹Negative responses to three or more of the compliance criteria at this stage indicates that the proposed projects may not be evaluated using this "short form procedure". Care should be used in assessing pertinent portions of the technical information of items 2a-d, before completing the final review of compliance.

²Negative responses to one of the compliance criteria at this stage indicates that the proposed project does not comply with the guidelines. If the economics of navigation and anchorage of Section 404(b)(2) are to be evaluated in the decision-making process, the "short form" evaluation process is inappropriate.

³If the dredged or fill material cannot be excluded from individual testing, the "short form" evaluation process is inappropriate.

7. Evaluation Responsibility.

a. Water Quality input provided by: Donna K. Bivona

Position: Hydraulic Engineer GS-11

Date: 11 July 2002

b. This evaluation was reviewed by: LINDA G. MATHIES

Position: CHIEF, ENVIRONMENTAL FUNCTION, TECHNICAL SUPPORT BRANCH

Date: 12 JULY 2002

8. Findings.

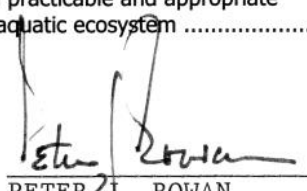
a. The proposed disposal site for discharge of dredged or fill material complies with the Section 404(b)(1) guidelines X

b. The proposed disposal site for discharge of dredged or fill material complies with the Section 404(b)(1) guidelines with the inclusion of the following conditions

c. The proposed disposal site for discharge of dredged or fill material does not comply with the Section 404(b)(1) guidelines for the following reason(s):

- (1) There is a less damaging practicable alternative
- (2) The proposed discharge will result in significant degradation of the aquatic ecosystem
- (3) The proposed discharge does not include all practicable and appropriate measures to minimize potential harm to the aquatic ecosystem

Date: 12 Jul 02


PETER J. ROWAN
COLONEL, EN
Commanding

12 July 2002

MEMORANDUM THRU C/Operations Division *EWB*

FOR Commander

SUBJECT: 404 (b)(1) Evaluation for Designation of Additional Disposal Area for Beneficial Use of Dredged Material from Bar Channel of Atchafalaya River and Bayous Chene, Boeuf, and Black, LA

1. Request that you sign the attached 404 (b)(1) evaluation for the designation of an additional disposal area for dredged material to be removed from the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, navigational project. The results of the evaluation indicate that the proposed discharge complies with the Section 404(b)(1) guidelines.
2. Questions and /or requests for additional information should be addressed to the undersigned at ext. 2318.

Attachment


LINDA G. MATHIES, Ph.D.
Chief, Environmental Function

CEMVN-ED-HM (CEMVN-OD-T/13 Feb. 02)(1110-2-1403a) 1st End Bivona/1812
SUBJECT: Request for 404(b)(1) Evaluation for disposal of dredged material from
maintenance of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA.

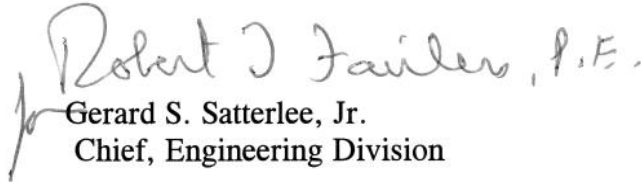
CEMVN-ED

11 July 02

✓ MEMORANDUM FOR: C/Operations and Readiness Division

1. Attached is the requested water quality input for the subject 404(b)(1) Evaluation (Attachment 2).
2. An electronic copy is available in Microsoft Word.
3. Point of contact is Donna K. Bivona/1812.

- 2 Atchs
1. nc
 2. cmts added

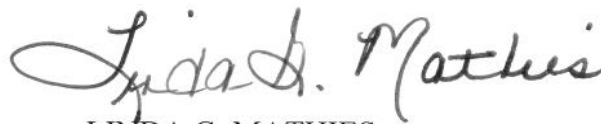

Gerard S. Satterlee, Jr.
Chief, Engineering Division

13 February 2002

MEMORANDUM FOR C/Engineering Division

SUBJECT: Request for 404(b)(1) evaluation for disposal of dredged material from maintenance of the Atchafalaya River bar channel, Atchafalaya River and Bayous Chene, Boeuf, and Black, LA.

1. Request that your Hydraulics and Hydrology Branch complete sections of the 404 (b)(1) evaluation relating to impacts to water quality for the designation and use of an additional open water site pursuant to Section 404 of the Clean Water Act (CWA) of 1977 for the beneficial use of dredged material removed from the bar channel.
2. This site is being designated in conjunction with the proposed selection of an additional ocean dredged material disposal site on the west or right-descending bank of the bar channel as described in attachment 1. The proposed Section 404 disposal site is rectangular-shaped, approximately 3.0 miles wide by 1.1 miles long, parallel to the Atchafalaya River bar channel and on the west side or right-descending bank. The site encompasses approximately 220 acres of shallow open water. The inner limit of the proposed Section 404 disposal site is approximately 2640 feet from the centerline of the navigation channel. The configuration of the proposed disposal site is depicted on Figure 3 of attachment 1. Dredged material would be placed into the proposed Section 404 disposal site unconfined and in a manner conducive to creation of islands for colonial nesting seabirds. The initial height of the dredged material disposal mounds would be no higher than +8.0 feet Mean Low Gulf. The optimum final grade area of the created islands would range from 5 to 25 acres depending on the particular assemblage of birds for which an island is created. The subaerial edges of the created islands would be at least 1000 feet apart. From 400,000 to 2,000,000 cubic yards of dredged material would be placed annually into the proposed Section 404 disposal site.
3. A short-form 404 (b)(1) is provided as attachment 2. This evaluation is requested not later than 15 March 02.
4. Questions and/or requests for additional information should be directed to me at ext. 2318.



LINDA G. MATHIES
Chief, Environmental Function

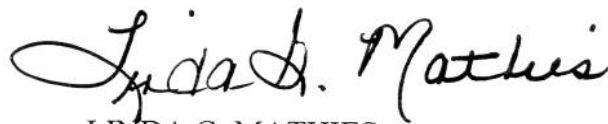
Attachments

13 February 2002

MEMORANDUM FOR C/Engineering Division

SUBJECT: Request for 404(b)(1) evaluation for disposal of dredged material from maintenance of the Atchafalaya River bar channel, Atchafalaya River and Bayous Chene, Boeuf, and Black, LA.

1. Request that your Hydraulics and Hydrology Branch complete sections of the 404 (b)(1) evaluation relating to impacts to water quality for the designation and use of an additional open water site pursuant to Section 404 of the Clean Water Act (CWA) of 1977 for the beneficial use of dredged material removed from the bar channel.
2. This site is being designated in conjunction with the proposed selection of an additional ocean dredged material disposal site on the west or right-descending bank of the bar channel as described in attachment 1. The proposed Section 404 disposal site is rectangular-shaped, approximately 3.0 miles wide by 1.1 miles long, parallel to the Atchafalaya River bar channel and on the west side or right-descending bank. The site encompasses approximately 220 acres of shallow open water. The inner limit of the proposed Section 404 disposal site is approximately 2640 feet from the centerline of the navigation channel. The configuration of the proposed disposal site is depicted on Figure 3 of attachment 1. Dredged material would be placed into the proposed Section 404 disposal site unconfined and in a manner conducive to creation of islands for colonial nesting seabirds. The initial height of the dredged material disposal mounds would be no higher than +8.0 feet Mean Low Gulf. The optimum final grade area of the created islands would range from 5 to 25 acres depending on the particular assemblage of birds for which an island is created. The subaerial edges of the created islands would be at least 1000 feet apart. From 400,000 to 2,000,000 cubic yards of dredged material would be placed annually into the proposed Section 404 disposal site.
3. A short-form 404 (b)(1) is provided as attachment 2. This evaluation is requested not later than 15 March 02.
4. Questions and/or requests for additional information should be directed to me at ext. 2318.



LINDA G. MATHIES
Chief, Environmental Function

Attachments

PROJECT DESCRIPTION

The U. S. Army Engineer District, New Orleans (NOD), proposes to construct advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act (CWA) of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel.

PROJECT PURPOSE: The Final Environmental Impact Statement (FEIS), Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana; the Final Supplement to the FEIS, Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana; and a Supplemental Information Report, Atchafalaya River and Bayous Chene, Boeuf, and Black, assessed the impacts of operation and maintenance of the authorized navigation channel to a depth of 20 feet with 2 feet of advanced maintenance and 2 feet of allowable overdepth from the U.S. Highway 90 crossing over Bayou Boeuf to the Gulf of Mexico via the Gulf Intra-coastal Waterway, Bayou Chene, Avoca Island Cutoff, the Lower Atchafalaya River, and across Atchafalaya Bay to the Gulf of Mexico (Figure 1). Historically, the navigation channel has been maintained to a depth of 24 feet (20 feet deep with 2 feet advanced maintenance and 2 feet of allowable overdepth).

Currently, the presence of “fluff” or fluid mud (terms used interchangeably herein) in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project has made it difficult to provide a reliable, navigable -20-foot channel through the bar. The “fluff” returns to the channel within weeks after maintenance dredging is complete and interferes with the passage of certain types of vessels to the Port of Morgan City.

The NOD has committed to more frequent maintenance dredging in the bar channel to alleviate the “fluff” problems. The NOD also has tasked the Engineering Research and Development Center (ERDC) to conduct studies in the bar channel and make recommendations for a permanent resolution of the fluid mud issue. The ERDC studies are designed to determine the fate of dredged material placed into the existing ODMDS; to investigate alternative locations for the Atchafalaya River bar channel ODMDS; to determine if deepening the bar channel would alleviate the “fluff” problem; to recommend special survey techniques to identify fluid mud layers; to determine if sectional advanced maintenance would provide shoal storage and make the deepened portion of the channel more hydraulically efficient; and to investigate non-traditional channel training works to increase sediment transport capacity and reduce the annual shoaling volume.

In response to a proposal from the ERDC, the NOD proposes to construct five (5) advanced maintenance test sections in the bar channel in that portion of channel with the most rapid shoaling rate. The test sections would be constructed to a depth of -28.0 feet Mean Low Gulf (MLG), i.e., 4 feet below the currently maintained depth of -24 feet MLG. Construction of the proposed test sections and monitoring of shoaling rates in the sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time between maintenance events.

The NOD also is proposing selection and designation of additional disposal sites on the west or right-descending bank of the bar channel in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being transported back into the navigation channel by prevailing littoral currents. The NOD would select and use the proposed ODMDS under its Section 103 authority for five years and would designate and use the Section 404 site for the same period. The ERDC and the NOD would analyze dredging records and surveys of the ODMDS and the navigation channel to test the hypothesis that placement of dredged material from maintenance of the bar channel on the west side of the channel will decrease the shoaling rate and the frequency of maintenance dredging. If monitoring indicates that placement of dredged material on the west side/right-descending bank of the bar channel decreases the frequency and need for maintenance of the bar channel, the NOD would request that the Environmental Protection Agency (EPA) designate the proposed Section 103 site pursuant to Section 102 (c) for continuing use.

PROPOSED ACTION: Five (5) advanced maintenance test sections would be constructed in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, project between C/L Station 716+00 and C/L Station 1086+00 (Figure 2). The test sections would be approximately 2000 feet apart and would be constructed to a depth of -28 feet MLG. The four (4) test sections on the upper end of the bar channel would be 6000 feet in length; the fifth test section would be 5000 feet in length. Test sections would be 375 feet wide, slightly narrower than the authorized width of the navigation channel, to allow continuous side slopes of about 1:3 and to avoid de-stabilizing the slopes. Approximately 1,680,000 cubic yards of dredged material would be removed during construction of the proposed advanced maintenance test sections and would be placed into proposed disposal sites on the west or right-descending bank of the channel.

An additional Section 404 disposal area would be designated pursuant to Section 404 of the CWA and an additional ODMDS would be selected pursuant to Section 103 (b) of the MPRSA. Both of the proposed disposal sites would be located on the west or right-descending bank of the navigation channel and would be used for the placement of dredged material from the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, project.

DISPOSAL SITES: The proposed Section 404 disposal site is rectangular-shaped, approximately 3.0 miles wide by 1.1 miles long, parallel to the Atchafalaya River bar channel and on the west side or right-descending bank. The site encompasses approximately 220 acres of shallow open water. The inner limit of the proposed Section 404 disposal site is approximately 2640 feet from the centerline of the navigation channel (Figure 3).

Coordinates of the four corners of the proposed Section 404 disposal site are as follows:

29° 23' 14" N, 91° 26' 35" W
29° 21' 38" N, 91° 24' 14" W
29° 24' 02" N, 91° 25' 53" W
29° 22' 25" N, 91° 23' 32" W

The proposed ODMDS is rectangular-shaped, approximately 3.0 miles wide by 18 mile long, parallel to the Atchafalaya River bar channel and on the west side or right-descending bank. The proposed site encompasses approximately 35,000 acres of open water. The inner limit of the proposed ODMDS is approximately 2640 feet from the centerline of the navigation channel (Figure 3).

Coordinates of the four corners of the proposed ODMDS are as follows:

29° 23' 14" N, 91° 26' 35" W

29° 21' 38" N, 91° 24' 14" W

29° 09' 16" N, 91° 35' 12" W

29° 10' 52" N, 91° 37' 33" W

The center of the proposed site is approximately 19 miles from the mainland coast. Soundings of the site range from approximately 6 to 21 feet MLG and its area is approximately 54 square miles.

HISTORICAL SITE USE: The existing Section 404 disposal site on the east or left-descending bank of the navigation channel has been used annually for placement of dredged material from maintenance of the Atchafalaya River bar channel since 1992. Only material suitable for stacking to construct islands for colonial nesting seabirds has been placed at the site. Historically, this has been the dredged material removed between C/L Station 475+00 and C/L Station 650+00. The quantity of dredged material placed into the site each year has ranged from 390,000 cubic yards to 2,998,774 cubic yards.

As an interim- and Section 102-designated ODMDS, the existing ODMDS on the east or left-descending bank of the navigation channel has been used annually except for 1978, 1980, and 1982 for the placement of material dredged from the Atchafalaya River bar channel. The quantity of dredged material discharged into the site each year has ranged from 1,000,000 cubic yards to 14,000,000 cubic yards. Discharge of dredged material into the site has had no apparent adverse environmental impacts outside the disposal site boundary.

ANTICIPATED SITE USE: Maintenance dredging of the Atchafalaya River bar channel is required on an annual basis and only dredged material from the navigation channel would be disposed into the proposed Section 404 disposal site and into the proposed ODMDS. Dredged Material would be removed using hydraulic cutterhead pipeline dredges and/or hopper dredges. Cutterhead dredges would discharge dredged material into the proposed Section 404 disposal site and into the proposed ODMDS as a non-cohesive slurry through a floating pipeline. Hopper dredges would perform agitation dredging and would haul dredged material to the ODMDS. The dredged material generally is comprised of silty-clay with traces of sand.

Dredges would be assigned to the bar channel anytime surveys indicate that shoaling has compromised the authorized navigation channel. When a dredge is working in the bar channel, disposal operations will occur 24 hours a day, 7 days a week until authorized channel dimensions are restored.

Dredged material would be placed into the proposed Section 404 disposal site unconfined and in a manner conducive to creation of islands for colonial nesting seabirds. The initial height of the dredged material disposal mounds would be no higher than +8.0 feet Mean Low Gulf. The optimum final grade area of the created islands would range from 5 to 25 acres depending on the particular assemblage of birds for which an island is created. The subaerial edges of the created islands would be at least 1000 feet apart. From 400,000 to 2,000,000 cubic yards of dredged material would be placed annually into the proposed Section 404 disposal site.

Dredged material would be discharged into the proposed ODMDS in a manner that would ensure that direct impacts of the disposal would be within the limits of the site. From 9,000,000 to 12,000,000 cubic yards of dredged material would be discharge annually in the proposed ODMDS.

It is anticipated that annual maintenance of the Atchafalaya River bar channel will continue in the future. Disposal of dredged material into the proposed Section 404 disposal site will continue until the site is filled. Disposal of dredged material into the proposed ODMDS would be limited to five years unless monitoring indicates that placement of dredged material into the site is adversely impacting the environment or other uses of the ocean, or the EPA designates the ODMDS for continuing use pursuant to Section 102 (c) of the MPRSA.

SECTION 404(b)(1) GUIDELINES: Placement of dredged material removed from the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, project into the proposed Section 404 disposal site would be made through application of guidelines promulgated by the Administrator, EPA, in conjunction with the Secretary of the Army. If these guidelines alone prohibit the placement of dredged material into the proposed disposal area, any impairment to the maintenance of navigation and anchorage that would result from failure to use the proposed disposal site also would be considered.

MARINE PROTECTION, RESEARCH, AND SANCTUARIES ACT: The U.S. Army Engineer District, New Orleans proposes to select the ODMDS on the west or right-descending bank of the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, project pursuant to Section 103(b) of the MPRSA. The criteria and factors established in Section 102(a) of the MPRSA relating to site selection will be used in selecting the site in a manner consistent with the application of the factors and criteria pursuant to Section 102(c).

The proposed transportation of the dredged material for disposing of it in ocean waters also is being evaluated to determine that the proposed disposal will not unreasonably degrade or endanger human health, welfare, or amenities or the marine environment, ecological systems, or economic potentialities. In making this determination, the criteria established by the Administrator, EPA pursuant to Section 102(a) of the MPRSA, will be applied. In addition, based upon an evaluation of the potential effects which the failure to utilized this ocean disposal site will have on navigation, economic and industrial development, and foreign and domestic commerce of the United States, an independent determination will be made on the need to dispose of the dredged material in ocean waters, other possible methods of disposal, and other appropriate locations.

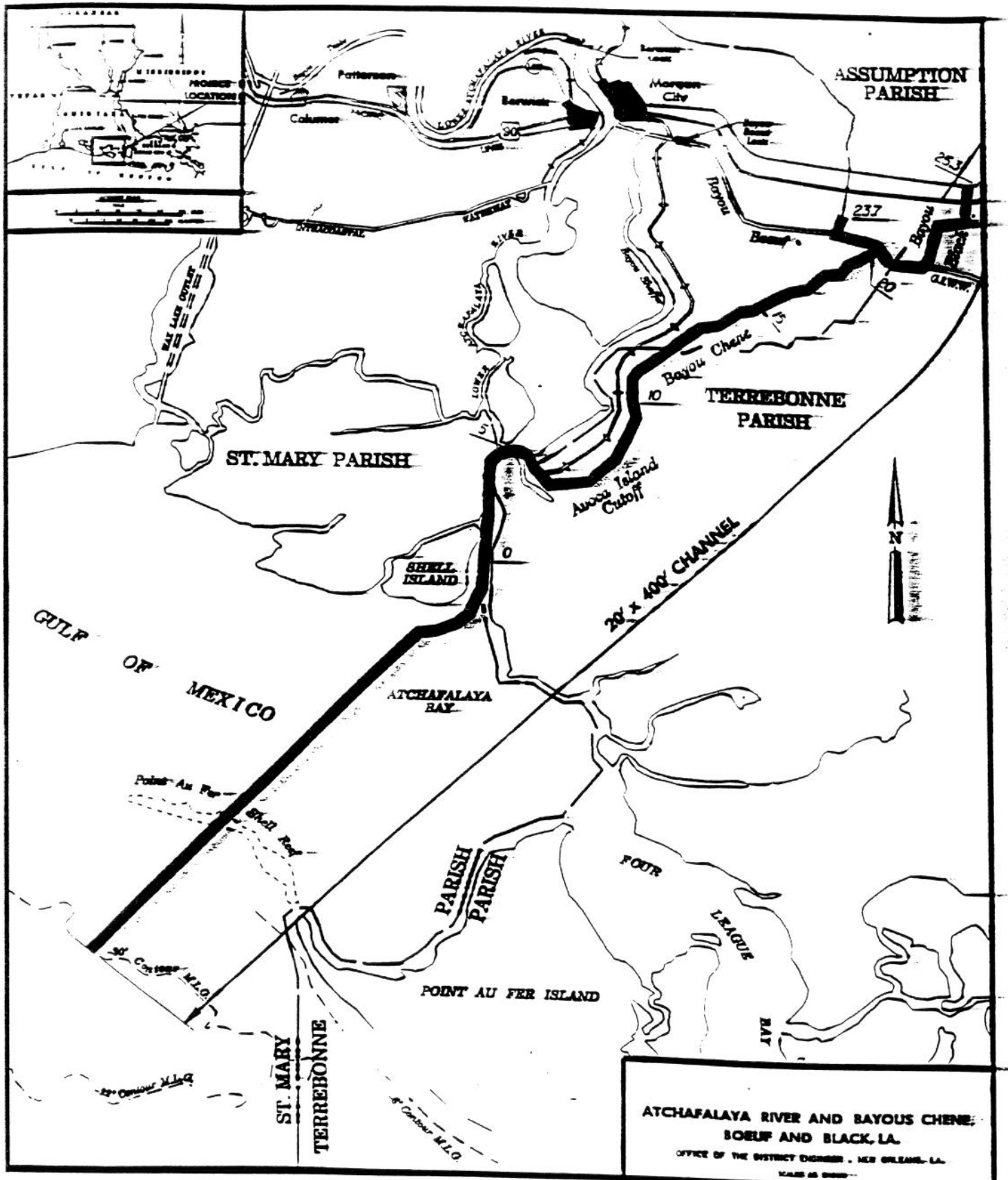
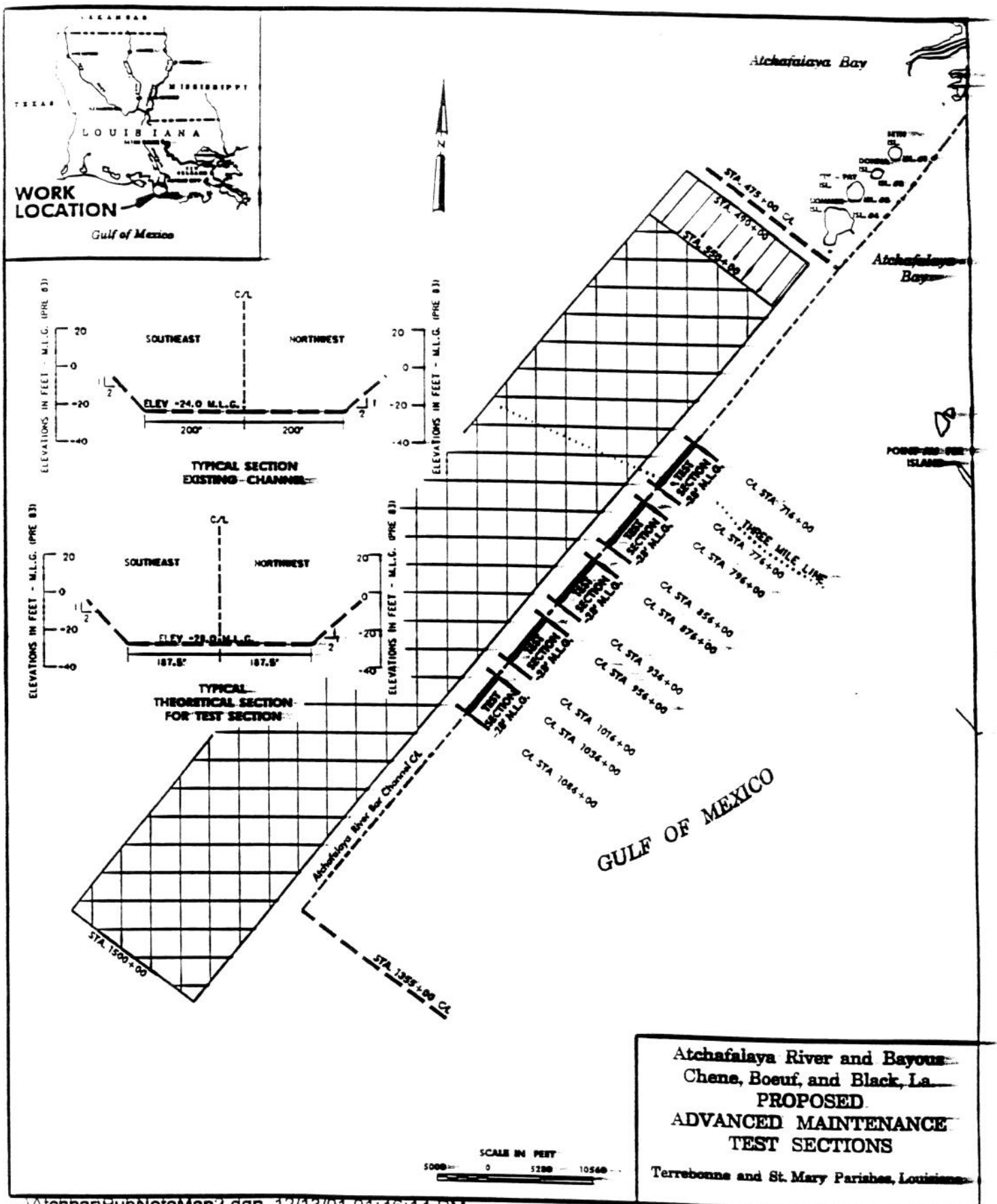
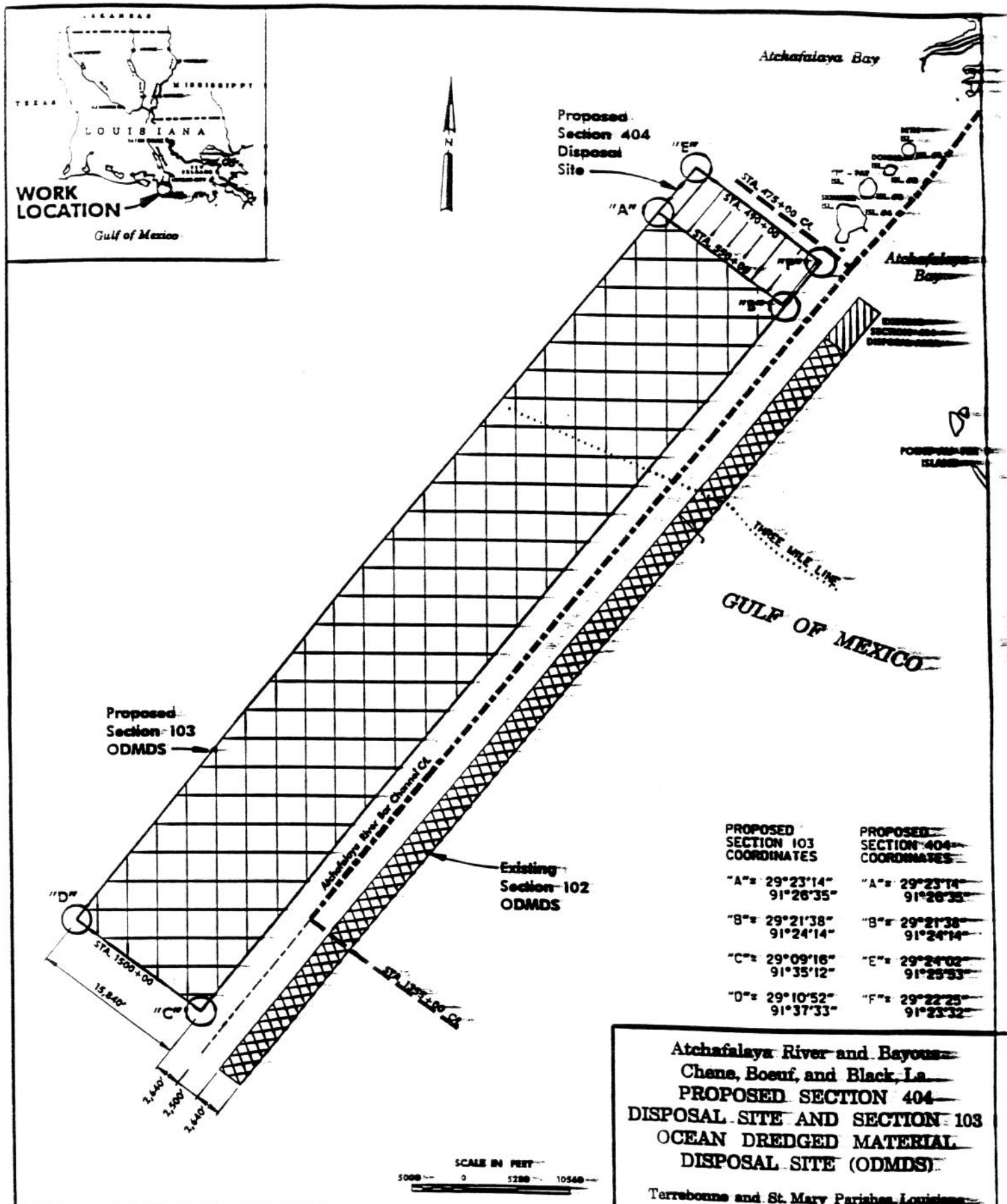


Figure 1



AtchbarPubNoteMap2.dgn 12/13/01 01:46:14 PM

Figure 2



WQC



FILE



State of Louisiana
Department of Environmental Quality

M. J. "MIKE" FOSTER, JR.
GOVERNOR

J. DALE GIVENS
SECRETARY

July 22, 2002

U.S. Army Corps of Engineers
New Orleans District
CEMVN-OD-T
P.O. Box 60267
New Orleans, LA 70160-0267

Attention: Linda G. Mathies

RE: Water Quality Certification (WQC 020219-02/AI# 98817)
Corps of Engineers Permit (EA #348)
St. Martin and St. Mary Parishes

Dear Ms. Mathies:

The Department has received an application to construct five advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black and designate additional disposal areas on the west or right-descending bank of the bar channel in St. Martin and St. Mary Parishes.

The requirements for Water Quality Certification have been met in accordance with LAC 33:IX.1507.A-E. Based on the information provided in your application, we have determined that the placement of the fill material will not violate the water quality standards of Louisiana provided for under LAC 33:IX.Chapter 11. Therefore, the Department has no objection to this project.

Sincerely,

Jodi G. Miller
Environmental Scientist Manager
Registrations and Certifications Section

JGM/ksa

c: Corps of Engineers, New Orleans
Coastal Management Division





DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT CORPS OF ENGINEERS

P.O. BOX 60267

NEW ORLEANS, LOUISIANA 70160-0267

July 11, 2002

REPLY TO
ATTENTION OF:

Operations Division
Technical Support Branch

Mr. Larry Wiesepape
Certifications Coordinator
Office of Water Resources
Louisiana Department of
Environmental Quality
Post Office Box 82215
Baton Rouge, Louisiana 70884-2251

Dear Mr. Wiesepape:

Reference is made our February 7, 2002, letter in which we submitted an application for water quality certification for the continued maintenance of the Atchafalaya River bar channel in association with the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, navigation project (Figure 1). The work that is proposed was described in detail in attachments to our letter and in Public Notice CEMVN-OD-T (Atchafalaya River and Bayous Chene, Boeuf and Black, Louisiana), dated December 21, 2001.

In response to requests from Ms. Tessa Roy of your staff, we provided copies of the 1996 sampling and analyses of sediment/dredged material from the Atchafalaya River bar channel. The New Orleans District performed additional sampling and analysis of sediment from the bar channel in accordance with the current national guidance manual, *Evaluation of Dredged Material Proposed for Ocean Disposal – Testing Manual*, in April, 2002. The results of the chemical analysis of sediment, ambient water, and elutriates were mailed to your office on June 11, 2002. The results of the water column toxicity tests/suspended particulate phase bioassays and the benthic toxicity tests/solid phase bioassays were e-mailed to you on June 26, 2002. We are providing the remainder of the data and our evaluation of the data for your consideration during processing of the water quality certification.

Dredged Material Characterization/Evaluation

Sampling and analyses of the sediment proposed for removal and placement in the disposal sites located on the west side of the navigation channel was done in accordance with the attached sampling and analysis plan (attachment 1).

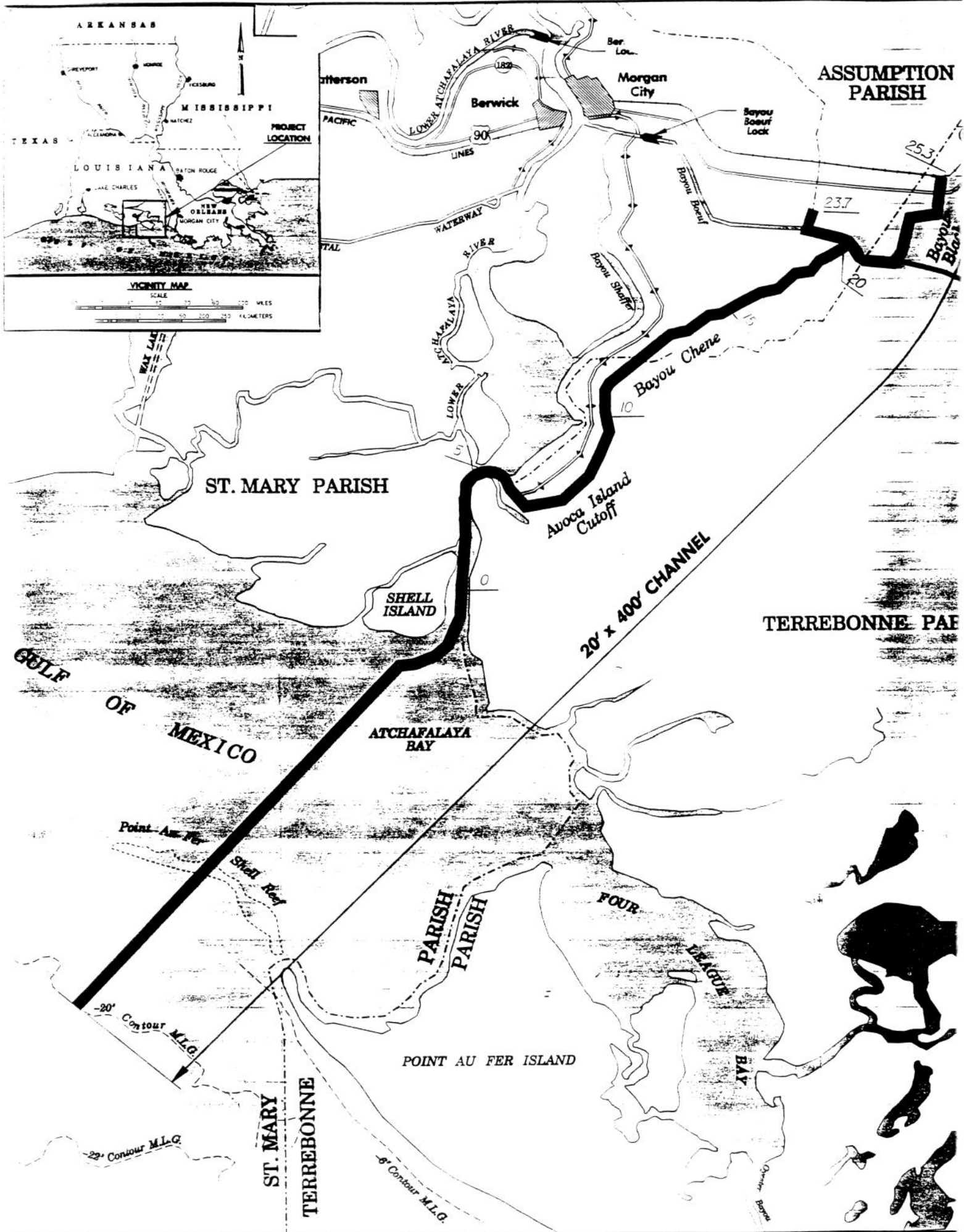


Figure 1

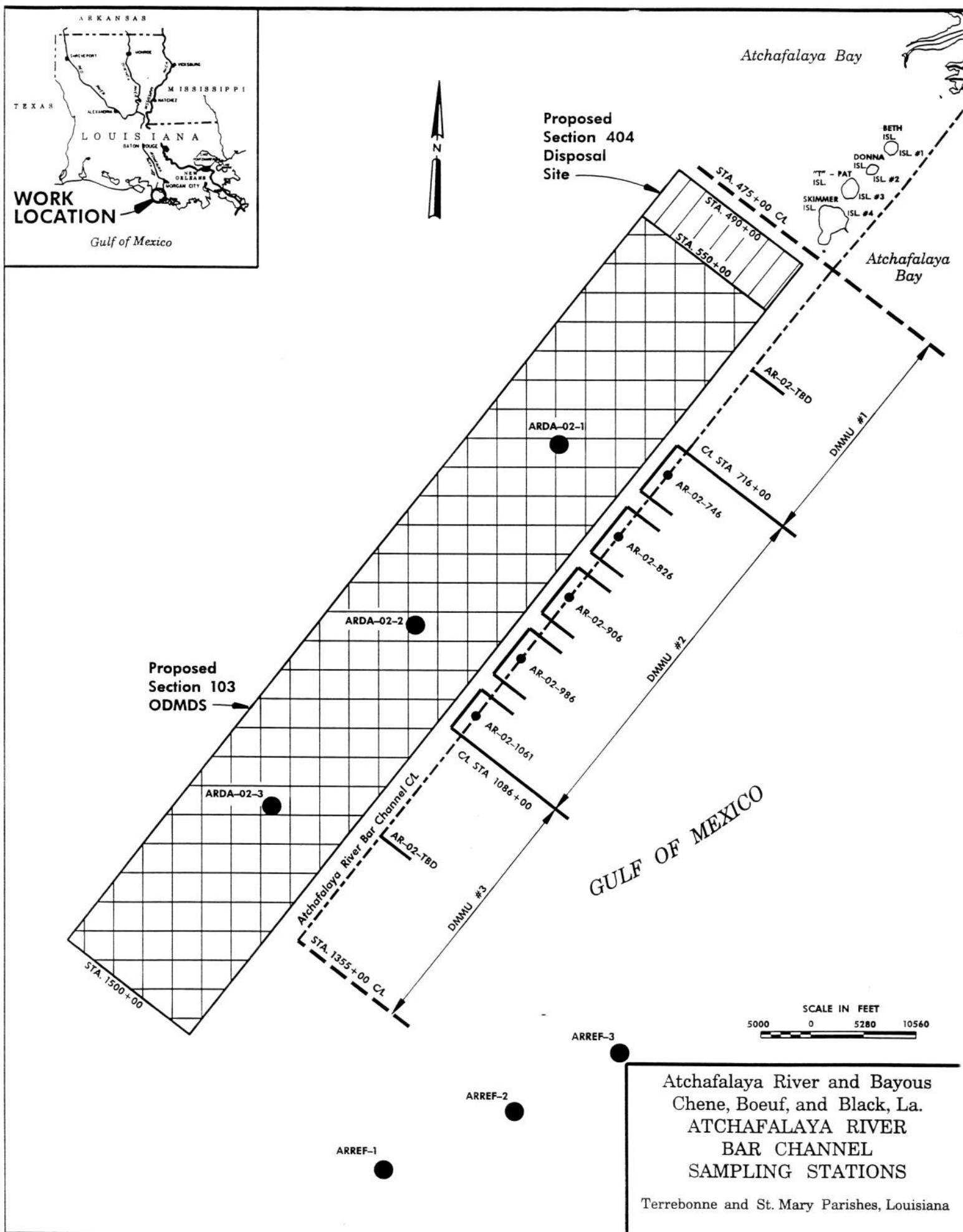
On April 15, 2002, water and sediment samples from ten (10) stations within the Atchafalaya River bar channel and from the reference area; sediment from the Reference Area; and water from the Section 103 ODMDS on the right-descending bank of the channel were collected for chemical and grain size analyses, water column toxicity bioassays, benthic toxicity tests/solid phase toxicity bioassays, and bioaccumulation tests (Figure 2). Anacon, Incorporated, Houston, Texas, collected sediment and water samples and performed physical and chemical analyses; water column toxicity tests/suspended particulate phase bioassays, benthic toxicity tests/solid phase toxicity bioassays, and bioaccumulation tests were performed by PBS&J, Houston, Texas.

A description of the sampling survey, including dates, sampling devices used, and the location of the sediment sampling stations for the dredging area and for the reference area will be provided as soon as it is received. We have included a chart with sampling dates and location of the sediment sampling stations (attachment 2). A final report will be provided as soon as it is received from Anacon, Inc. The report will include descriptions of quality assurance/quality control procedures for all sampling and testing as well as references for laboratory protocols for physical, chemical and biological analyses.

Physical and chemical analyses were performed on sediment from each in-channel station and the reference area. Chemical analyses also were conducted on ambient water from each in-channel station and from the disposal area and on an elutriate from each in-channel station. Water column toxicity tests/water column bioassays; benthic toxicity tests/solid phase bioassays; and bioaccumulation tests were performed on composited sediment from three dredged material management units (Figure 2) and on sediment from the reference area. Dredged Material Management Unit (DMMU) #1 was comprised of in-channel stations AR-02-668 and AR-02-716; DMMU #2 was comprised of in-channel stations AR-02-729, AR-02-826, AR-02-906, AR-02-986, and AR-02-1061; and DMMU #3 was comprised of in-channel stations AR-02-1128, AR-02-1252, and AR-02-1308.

Sediment Chemistry:

The results of the bulk sediment chemistry from the ten (10) in-channel stations and the reference area revealed the presence of metals and one base/neutral compound. No pesticides, PCBs, or acid compounds were detected. Arsenic, chromium³⁺, copper, lead, nickel, and zinc were detected at all in-channel stations. Cadmium was detected at all in-channel stations except AR-02-986 and AR-02-1308. Beryllium was detected in sediment from in-channel stations AR-02-96 and AR-02-1061. Selenium was detected at in-channel station AR-02-1061; silver was present in sediment from in-channel station AR-02-1061; and thallium was detected at in-channel stations AR-02-1252 and AR-02-1308. Bis(2-ethylhexyl)phthalate, a phthalate ester, was detected in sediment from in-channel stations AR-02-826 and AR-02-906. Arsenic, chromium³⁺, copper, lead, nickel, silver, and zinc were detected in sediment from the reference area.



Water and Elutriate Chemistry:

Results from the chemical analyses of ambient water and elutriates from the ten (10) in-channel stations revealed the presence of metals. No pesticides, PCBs, base/neutral compounds, or acid compounds were detected. The concentrations of metals detected in both the ambient water samples and the elutriates are listed in Table 1. Copper was detected in concentrations that exceed the Louisiana Numerical Criteria (3.63 ug/l) in ambient water from AR-02-1061 (9.25 ug/l) and AR-02-1308 (6.67 ug/l) and in the elutriate from AR-02-826 (4.53 ug/l). Considering the magnitude by which the concentration of copper in the elutriate from AR-02-826 exceeded the Louisiana Numerical Criteria and the size of the disposal area, it is likely that the criteria will not be exceeded after initial mixing. Therefore, no further analysis using mixing models were done.

Water Column Toxicity Tests/Water Column Bioassays:

In water column toxicity tests/water column bioassays, sensitive water column organisms are exposed to a serial dilution (10, 25, 50, and 100%) of the dredged material elutriate and a 100% control/dilution water treatment for 96 hours. If survival in the 100% dredged material elutriate treatment is less than survival in the control/dilution water treatment, but the difference does not exceed 10%, the LPC for water column toxicity/suspended particulate phase has been met. If survival in the 100% dredged material treatment is less than survival in the control/dilution water treatment, and the difference is greater than 10%, the results are evaluated statistically to determine if the dredged material treatment is significantly more toxic than the control/dilution water treatment. If the 100% dredged material treatment is not statistically different from the control/dilution water treatment, the dredged material is not predicted to be acutely toxic to water column organisms and the LPC for water column toxicity/suspended particulate phase has been met. When the statistical analyses indicate that survival in the 100% elutriate treatment is statistically different than survival in the control/dilution water treatment, an LC_{50} is calculated, if possible. The LC_{50} is the concentration that kills 50% of the organisms. A numerical model is used to compare the concentration of contaminants in the dredged material to 0.01 of the LC_{50} at the edge of the mixing zone. If the modeled concentration of the dredged material, after allowance for mixing, exceeds 0.01 of the LC_{50} beyond the boundaries of the mixing zone, the dredged material is predicted to be acutely toxic to water column organisms.

Results from the water column toxicity/suspended particulate phase bioassays using the adult and juvenile mysid shrimp, *Americamysis bahia*, and the silverside, *Menidia beryllina*, indicate that the LPC for water column toxicity/suspended particulate phase will be met (attachment 3). Survival of juvenile mysid shrimp in the 100% elutriate treatments from DMMU #1 was less than survival in the dilution water treatment; however, the difference in survival did not exceed 10%. Survival of adult mysid shrimp in the 100% elutriate treatments from DMMU #1, DMMU #2, and DMMU #3 was less than survival in the dilution water treatment; however, the difference in survival did not exceed 10%.

Benthic Toxicity Tests/Solid Phase Bioassays:

Dredged material is predicted to be acutely toxic to benthic organisms when the mortality of test organisms exposed to sediment from in-channel stations/dredged material is statistically greater than the mortality of test organisms exposed to sediment from the reference area, and exceeds mortality of organisms exposed to sediment from the reference area by at least 10% (20% for the amphipod).

Results from the 10-day benthic toxicity tests/solid phase bioassay tests using the amphipod, *Leptocheirus plumulosus*, and the mysid shrimp, *Americamysis bahia*, indicate sediment from the Atchafalaya bar channel is not predicted to be acutely toxic to benthic organisms (attachment 4). The survival data indicate that mortality in the sediment from the in-channel stations/dredged material does not exceed mortality of organisms exposed to sediment from reference area by 10% (20% for the amphipod) and is not statistically greater than mortality in the sediment from the reference area. According to our contractor, the low survival in the first run of the test with sediment from DMMU #1 was due to the fact that no organisms were added to replicates 2-5.

Bioaccumulation Tests:

According to the guidance manual, data from bioaccumulation tests are evaluated at two levels. First, the amount of bioaccumulation of a specific contaminant in tissues exposed to dredged material is compared to applicable Food and Drug Administration (FDA) Action or Tolerance Levels for Poisonous or Deleterious Substances in Fish and Shellfish for Human Food, when such levels have been set for the particular contaminant. If the tissue concentration of the contaminant is not less than the FDA levels, the dredged material is predicted to result in benthic bioaccumulation and there is the potential for the dredged material to have an “unacceptable adverse effect.” If the tissue concentration of the contaminant is less than the FDA level, or if there is no FDA level for comparison, the contaminant concentration in tissues exposed to dredged material is compared to contaminant concentrations of tissues exposed to sediment from the reference area. If the tissue concentration of the contaminant in organisms exposed to dredged material does not statistically exceed the tissue concentration of the contaminant in organisms exposed to sediment from the reference area, the dredged material is not predicted to result in benthic bioaccumulation. If tissue concentrations of the contaminant in organisms exposed to dredged material statistically exceed those of organisms exposed to sediment from the reference area, the conclusion regarding benthic bioaccumulation is based on technical evaluations such as the following:

1. the toxicological importance of the contaminant;
2. the magnitude by which bioaccumulation in tissues of organisms exposed to dredged material exceed bioaccumulation in tissues of organisms exposed to sediment from the reference area;
3. the propensity for the contaminant to biomagnify within the aquatic food webs;

4. the magnitude by which the contaminant whose bioaccumulation from dredged material exceeds that from the reference area also exceeds the concentrations found in comparable species living in the vicinity of the proposed disposal area; and

5. the number of contaminants for which bioaccumulation from the dredged material is statistically greater than bioaccumulation from sediment from the reference area.

Chemical analysis of the tissues of the polychaete, *Nereis virens*, and the mollusk, *Macoma nasuta*, exposed to in-channel sediment/dredged material from DMMUs #1, #2, and #3 and to sediment from the reference area during the 28-day bioaccumulation tests revealed the presence of metals and base/neutral compounds (attachments 5 and 6).

The concentrations of arsenic (2.27 mg/kg, 2.28 mg/kg, and 2.36 mg/kg); cadmium (0.11 mg/kg, 0.14 mg/kg, and 0.13 mg/kg); chromium ³⁺ (0.35 mg/kg, 0.42 mg/kg, and 1.62 mg/kg); copper (2.63 mg/kg, 1.80 mg/kg, and 1.65 mg/kg); nickel (0.57 mg/kg, 0.74 mg/kg, and 1.13 mg/kg); and zinc (8.94 mg/kg, 13.46 mg/kg, and 9.09 mg/kg) in the tissues of polychaetes exposed to sediment from DMMU #1, DMMU #2, and DMMU #3 were numerically greater than the concentration of these metals (arsenic 2.20 mg/kg; cadmium 0.10 mg/kg; chromium ³⁺ 0.24 mg/kg; copper 1.21 mg/kg; nickel 0.51 mg/kg; and zinc 8.52 mg/kg) in the tissues of polychaetes exposed to sediment from the reference area. The concentrations of lead (0.27 mg/kg) and the concentration of selenium (0.25 mg/kg) in the tissues of polychaetes exposed to sediment from DMMU #1 were numerically greater than the concentrations of these metals (lead 0.26 mg/kg and selenium 0.22 mg/kg) in the tissues of polychaetes exposed to sediment from the reference area.

The concentrations of butyl benzyl phthalate (31.3 ug/kg); diethyl phthalate (22.3 ug/kg); and di-n-butyl phthalate (27.2 ug/kg) in the tissues of polychaetes exposed to sediment from DMMU #1 were numerically greater than the concentrations of these compounds (butyl benzyl phthalate 20 ug/kg; diethyl phthalate 20 ug/kg; and di-n-butyl phthalate 24.1 ug/kg) in the tissues of polychaetes exposed to sediment from the reference area.

The concentrations of arsenic (1.81 mg/kg, 2.19 mg/kg, and 1.87 mg/kg); chromium ³⁺ (0.51 mg/kg, 0.60 mg/kg, and 0.41 mg/kg); and copper (2.76 mg/kg, 2.60 mg/kg, and 2.77 mg/kg) were numerically higher than the concentrations of these metals (arsenic 1.57 mg/kg; chromium ³⁺ 0.46 mg/kg; and copper 2.77 mg/kg) in tissues of mollusks exposed to sediment from the reference area. The concentration of nickel (0.52 mg/kg) in tissues of mollusks exposed to sediment from DMMU #1 and the concentration of zinc (10.47 mg/kg) in tissues of mollusks exposed to sediment from DMMU #2 were numerically higher than the concentration of these metals (nickel 0.49 mg/kg and zinc 9.82 mg/kg) in tissues of mollusks exposed to sediment from the reference area.

The concentrations of bis (2-ethylhexyl) phthalate (284.2 ug/kg) and di-n-octyl phthalate (986.4 ug/kg) in tissues of mollusks exposed to sediment from DMMU #3 were numerically greater than the concentrations of these compounds (bis (2-ethylhexyl) phthalate 258.6 ug/kg and di-n-octyl phthalate 542.0 ug/kg) in the tissues of mollusks exposed to sediment from the reference area.

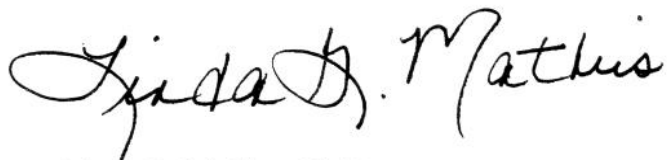
There are no FDA Action or Tolerance Levels for any of the contaminants that bioaccumulated in tissues of organisms exposed to sediment from DMMU #1, DMMU #2, or DMMU #3.

None of the concentrations of metals or base/neutral compounds in the tissues of the mollusks exposed to sediment from any of the DMMUs were statistically greater than the concentration of these compounds in tissues of mollusks exposed to sediment from the reference area (attachment 7). Only the concentration of chromium³⁺ (1.62 mg/kg) in tissues of polychaetes exposed to sediment from DMMU #3 was statistically greater than the concentration of chromium³⁺ (0.24 mg/kg) in tissues of polychaetes exposed to sediment from the reference area (attachment 8). However, this concentration was not statistically greater than the concentrations of chromium³⁺ in the tissues of polychaetes exposed to the control sediment (0.69 mg/kg) or in the tissues of archived polychaetes (0.57 mg/kg) (attachment 9). Therefore, the sediment from the Atchafalaya River bar channel is not predicted to result in benthic bioaccumulation of contaminants.

Based on the results of the sampling and analyses performed in April, 2002, we have no reason to believe that the dredged material proposed for removal during construction of the advanced maintenance test sections and continued maintenance of the Atchafalaya River bar channel and to be discharged in the open water disposal sites adjacent to the channel contains contaminants at concentrations that would violate state water quality standards/criteria or otherwise degrade the aquatic environment.

If you have any questions regarding this evaluation, please give me a call at (504) 862-2318. Considering the nature of the shoaling in the Atchafalaya River bar channel and the need to provide full channel dimensions for vessels traversing the channel, we request expeditious review of this data and issuance a state water quality certificate.

Sincerely,

A handwritten signature in black ink that reads "Linda G. Mathies". The signature is fluid and cursive, with the first name "Linda" and last name "Mathies" clearly legible.

Linda G. Mathies, Ph.D.
Chief, Environmental Function

Attachments

SAMPLING AND ANALYSIS PLAN
ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF, AND BLACK, LA
ATCHAFALAYA RIVER BAR CHANNEL

U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

Prepared by:
Linda G. Mathies
New Orleans District
U.S. Army Corps of Engineers

January 2002

Attachment 1

ATACHALAFAYA RIVER BAR CHANNEL

STATION I.D.	DATE	TIME	W. DEPTH	TEMP.	SALINITY	COND.	D.O.	Ph	TURB.	LATITUDE	LONGITUDE
ARDA-02-01	4/15/02	16:20	6.5 ft	19.0	11.8	17290	7.58	8.96	49.70	N 29.19' 21"	W 91.28' 09"
ARDA-02-02	4/15/02	16:42	7.5 ft	20.7	13.5	20300	7.74	7.77	50.60	N 29.16' 16"	W 91.30' 54"
ARDA-02-03	4/15/02	17:25	15.5 ft	16.9	11.5	16990	5.35	9.95	54.40	N 29.13' 10"	W 91.33' 39"
AR-02-1061	4/15/02	11:50	25.0 ft	20.2	13.2	19440	7.69	7.38	38.10	N 29.14' 43"	W 91.29' 45"
AR-02-986	4/15/02	13:05	24.5 ft	20.7	11.9	17400	6.97	10.11	49.00	N 29.15' 40"	W 91.28' 53.9"
AR-02-906	4/15/02	14:38	24.5 ft	20.9	11.6	17100	6.68	10.56	83.50	N 29.16' 44"	W 91.27' 57"
AR-02-826	4/15/02	15:45	24.5 ft	19.1	12.0	17550	6.25	10.09	70.50	N 29.17' 47"	W 91.27' 02"
AR-02-729	4/15/02	17:00	24.0 ft	20.7	12.5	18100	6.38	9.60	85.60	N 29.18' 50"	W 91.26' 05"
AR-02-716	4/15/02	19:10	24.0 ft	18.7	11.0	16320	6.65	9.45	67.60	N 29.19' 13.3"	W 91.25' 45.9"
AR-02-668	4/15/02	20:08	23.5 ft	18.6	11.3	16940	6.72	9.10	112.00	N 29.19' 57"	W 91.25' 12.8"
AR-02-1128	4/15/02	21:36	24.5 ft	16.8	11.4	16900	5.31	9.88	22.70	N 29.13' 51.9"	W 91.30' 50"
AR-02-1252	4/15/02	22:25	24.5 ft	16.8	11.5	16960	4.96	10.74	38.00	N 29.12' 14.9"	W 91.31' 59"
AR-02-1308	4/15/02	23:00	25.0 ft	16.6	11.2	16880	6.31	11.13	13.00	N 29.11' 34"	W 91.32' 36"

NOTES:

HEVAY BOAT TRAFFIC THROUGHOUT THE DAY AND NIGHT. EXTREMELY STRONG RIVER CURRENTS AND HIGHER WINDS AFTER 16:00. WATER IN CHANNEL WAS VERY MUDDY FROM BOAT TRAFFIC. REFERENCE SITES AND DISPOSAL SITE WATERS WERE MUCH CLEARER.

Attachment a

TABLE 7
THE NUMBER AND PERCENTAGES OF SURVIVING ORGANISMS
SUSPENDED PARTICULATE PHASE BIOASSAYS
100% TEST SOLUTION
APRIL 2002

		Number of Survivors							
Replicate		REF		DMMU-1		DMMU-2		DMMU-3	
		Control	Test	Control	Test	Control	Test	Control	Test
<i>M. bahia</i> juveniles 10/replicate	1	8	10	10	10	10	10	10	10
	2	10	9	10	6	10	10	10	10
	3	10	10	10	10	10	10	10	10
	4	10	8	10	10	10	10	10	10
	5	<u>8</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
Average		9.2	9.4	10.0	9.2	10.0	10.0	10.0	10.0
(%)		92.0%	94.0%	100.0%	92.0%	100.0%	100.0%	100.0%	100.0%
<i>M. bahia</i> adult 10/replicate	1	10	9	10	9	10	10	10	10
	2	10	10	10	10	9	9	10	9
	3	10	8	10	10	10	9	10	10
	4	10	10	10	7	10	8	10	9
	3	<u>10</u>	<u>9</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
Average		10.0	9.2	10.0	9.2	9.8	9.2	10.0	9.6
(%)		100.0%	92.0%	100.0%	92.0%	98.0%	92.0%	100.0%	96.0%
<i>M. beryllina</i> 10/replicate	1	9	10	9	10	10	10	10	10
	2	9	10	9	10	10	10	9	10
	3	9	10	9	10	10	10	10	10
	4	9	10	10	10	10	10	10	10
	3	<u>10</u>	<u>10</u>	<u>9</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>8</u>	<u>10</u>
Average		9.2	10.0	9.2	10.0	10.0	10.0	9.4	10.0
(%)		92.0%	100.0%	92.0%	100.0%	100.0%	100.0%	94.0%	100.0%

Table 8

THE NUMBER AND PERCENTAGES OF SURVIVING ORGANISMS
TEN-DAY SOLID PHASE BIOASSAYS
ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF, AND BLACK, LA.

Number of Survivors						
	Replicate (n=5)	True Control	Reference Control	DMMU-1	DMMU-2	DMMU-3
<i>L. plumulosus</i>	1	20	18	20	12	19
20/replicate	2	20	19	19	20	19
	3	19	19	20	19	20
	4	20	20	18	20	18
	5	<u>19</u>	<u>18</u>	<u>20</u>	<u>20</u>	<u>18</u>
	Average	19.6	18.8	19.4	18.2	18.8
	(%)	98.0%	94.0%	97.0%	91.0%	94.0%
<i>M. bahia</i>	1	18	18	15	12	17
20/replicate	2	17	12	0	17	16
	3	19	18	0	19	15
	4	17	20	0	15	20
	5	<u>19</u>	<u>19</u>	<u>0</u>	<u>18</u>	<u>17</u>
	Average	18.0	17.4	3.0	16.2	17.0
	(%)	90.0%	87.0%	15.0%	81.0%	85.0%
<i>M. bahia (Rerun)</i>	1	20	14	19		
20/replicate	2	17	20	20		
	3	16	19	20		
	4	20	19	20		
	5	<u>19</u>	<u>18</u>	<u>20</u>		
	Average	18.4	18.0	19.8		
	(%)	92.0%	90.0%	99.0%		
Total Organisms	1	40	32	39	24	36
40/replicate	2	37	39	39	37	35
	3	35	38	40	38	35
	4	40	39	38	35	38
	5	<u>38</u>	<u>36</u>	<u>40</u>	<u>38</u>	<u>35</u>
	Average	38.0	36.8	39.2	34.4	35.8
	(%)	95.0%	92.0%	98.0%	86.0%	89.5%

Note: Replicate 5 of DMMU #1 *M. bahia* rerun had used 10 organisms, with 100% survival. The 10 in/10 out was adjusted to 20 in/20 out for consistency in the tabular presentation.

TABLE 9
CONCENTRATIONS OF DETECTED COMPOUNDS
IN TISSUE SAMPLES OF
N. virens
ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF, AND BLACK, LA.

Parameter	Replicate	True Control	Reference Control	DMMU-1	DMMU-2	DMMU-3	Archive
Metals (mg/kg)							
Arsenic	1	2.90	2.27	2.16	2.25	2.16	1.94
	2	2.74	2.22	2.34	2.19	2.66	2.09
	3	2.56	2.31	2.47	2.29	2.22	1.86
	4	2.72	2.26	2.21	2.39	2.35	1.92
	5	<u>2.71</u>	<u>1.96</u>	<u>2.15</u>	<u>2.30</u>	<u>2.39</u>	<u>2.07</u>
	Total	13.63	11.02	11.33	11.42	11.78	9.88
	Average	2.73	2.20	2.27	2.28	2.36	1.98
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Cadmium	1	0.12	< 0.10	0.15	0.31	< 0.10	< 0.10
	2	< 0.10	< 0.10	< 0.10	< 0.10	0.23	< 0.10
	3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
	4	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.14
	5	<u>0.44</u>	< <u>0.10</u>	< <u>0.10</u>	< <u>0.10</u>	< <u>0.10</u>	< <u>0.10</u>
	Total	0.86	0.50	0.55	0.71	0.63	0.54
	Average	0.17	0.10	0.11	0.14	0.13	0.11
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Chromium Total and trivalent	1	0.59	0.24	0.89	1.23	1.23	0.38
	2	0.23	0.36	0.19	0.26	1.48	0.31
	3	0.28	0.18	0.25	0.25	4.72	0.34
	4	1.85	0.23	0.22	0.21	0.30	1.47
	5	<u>0.51</u>	<u>0.20</u>	<u>0.21</u>	<u>0.16</u>	<u>0.39</u>	<u>0.37</u>
	Total	3.46	1.21	1.76	2.11	8.12	2.87
	Average	0.69	0.24	0.35	0.42	1.62	0.57
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Copper	1	1.11	1.22	1.68	2.12	1.26	1.00
	2	1.02	1.42	1.11	1.62	2.19	0.96
	3	0.98	1.08	1.26	2.65	1.54	0.84
	4	1.10	1.16	1.14	1.34	1.49	1.10
	5	<u>1.36</u>	<u>1.15</u>	<u>7.95</u>	<u>1.29</u>	<u>1.76</u>	<u>1.22</u>
	Total	5.57	6.03	13.14	9.02	8.24	5.12
	Average	1.11	1.21	2.63	1.80	1.65	1.02
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Lead	1	< 0.10	0.28	0.26	0.24	0.19	1.34
	2	0.18	0.32	0.17	0.28	0.22	0.28
	3	0.17	0.22	0.27	< 0.10	0.14	0.20
	4	0.19	0.24	0.22	0.22	0.17	0.36
	5	<u>0.39</u>	<u>0.25</u>	<u>0.43</u>	<u>0.18</u>	<u>0.15</u>	<u>0.26</u>
	Total	1.03	1.31	1.35	1.02	0.87	2.44
	Average	0.21	0.26	0.27	0.20	0.17	0.49
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Nickel	1	0.59	0.50	0.88	1.60	0.86	0.35
	2	0.48	0.64	0.50	0.63	1.63	0.37
	3	0.54	0.43	0.51	0.49	2.13	0.37
	4	1.22	0.50	0.43	0.49	0.44	6.40
	5	<u>0.65</u>	<u>0.48</u>	<u>0.54</u>	<u>0.47</u>	<u>0.59</u>	<u>0.39</u>
	Total	3.48	2.55	2.86	3.68	5.65	7.88
	Average	0.70	0.51	0.57	0.74	1.13	1.58

Attachment 5

Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.

TABLE 9 (Continued)
CONCENTRATIONS OF DETECTED COMPOUNDS
IN TISSUE SAMPLES OF
N. virens
ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF, AND BLACK, LA.

Parameter	Replicate	True Control	Reference Control	DMMU-1	DMMU-2	DMMU-3	Archive
Selenium	1	< 0.20	0.25	0.25	< 0.20	0.32	0.23
	2	< 0.20	0.22	< 0.20	< 0.20	< 0.20	< 0.20
	3	< 0.20	0.23	0.23	< 0.20	< 0.20	< 0.20
	4	0.21	< 0.20	0.33	0.27	< 0.20	< 0.20
	5	< <u>0.20</u>	< <u>0.20</u>	<u>0.25</u>	< <u>0.20</u>	< <u>0.20</u>	<u>0.22</u>
	Total	1.01	1.10	1.26	1.07	1.12	1.05
	Average	0.20	0.22	0.25	0.21	0.22	0.21
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Zinc	1	7.81	8.41	9.25	7.69	7.55	9.79
	2	8.12	8.32	7.50	8.22	11.7	9.04
	3	7.36	8.85	7.96	8.19	9.09	8.83
	4	7.56	7.65	8.19	7.72	8.72	10.1
	5	<u>30.9</u>	<u>9.37</u>	<u>11.8</u>	<u>35.5</u>	<u>8.41</u>	<u>9.42</u>
	Total	61.75	42.60	44.70	67.32	45.47	47.18
	Average	12.35	8.52	8.94	13.46	9.09	9.44
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Base/Neutral Compounds (ug/kg)							
Bis (2-ethylhexyl) phthalate	1	78.6	280	85.0	65.9	106	55.8
	2	65.4	153	88.2	74.6	123	76.8
	3	66.6	267	55.2	74.5	101	77.9
	4	76.1	180	49.7	74.2	95.5	53.0
	5	<u>55.5</u>	<u>258</u>	<u>524.0</u>	<u>63.7</u>	<u>77.3</u>	<u>61.4</u>
	Total	342.2	1138.0	802.1	352.9	502.8	324.9
	Average	68.4	227.6	160.4	70.6	100.6	65.0
Parameter concentration in test tissues are not greater than in reference tissues, therefore, no statistical analyses of the data are required.							
Butyl benzyl phthalate	1	23.0	< 20.0	76.7	< 20.0	< 20.0	25.3
	2	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	31.8
	3	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
	4	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
	5	< <u>20.0</u>	< <u>20.0</u>	< <u>20.0</u>	< <u>20.0</u>	< <u>20.0</u>	< <u>20.0</u>
	Total	103.0	100.0	156.7	100.0	100.0	117.1
	Average	20.6	20.0	31.3	20.0	20.0	23.4
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Diethyl Phthalate	1	< 20.0	< 20.0	25.3	< 20.0	< 20.0	< 20.0
	2	< 20.0	< 20.0	26.2	< 20.0	< 20.0	< 20.0
	3	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
	4	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
	5	< <u>20.0</u>	< <u>20.0</u>	< <u>20.0</u>	< <u>20.0</u>	< <u>20.0</u>	< <u>20.0</u>
	Total	100.0	100.0	111.5	100.0	100.0	100.0
	Average	20.0	20.0	22.3	20.0	20.0	20.0
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Di-n-butyl Phthalate	1	29.6	< 20.0	38.6	< 20.0	< 20.0	22.8
	2	< 20.0	< 20.0	31.9	23.6	< 20.0	< 20.0
	3	< 20.0	40.3	25.5	< 20.0	< 20.0	< 20.0

4		21.6	<	20.0	<	20.0	<	20.0	<	20.0	<	20.0
5	<	<u>20.0</u>	<	<u>20.0</u>	<	<u>20.0</u>	<	<u>20.0</u>	<	<u>20.0</u>	<	<u>20.0</u>
Total		111.2		120.3		136.0		103.6		100.0		102.8
Average		22.2		24.1		27.2		20.7		20.0		20.6

Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.

TABLE 9 (Concluded)
CONCENTRATIONS OF DETECTED COMPOUNDS
IN TISSUE SAMPLES OF
N. virens
ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF, AND BLACK, LA.

Parameter	Replicate	True Control	Reference Control	DMMU-1	DMMU-2	DMMU-3	Archive
Di-n-octyl Phthalate	1	506	2760	65.8	317	519	389
	2	520	877	602	37.9	838	463
	3	288	1150	437	307	436	499
	4	556	808	258	459	540	299
	5	<u>569</u>	<u>768</u>	<u>1010</u>	<u>386</u>	<u>318</u>	<u>358</u>
Total		2439.0	6363.0	2372.8	1506.9	2651.0	2008.0
Average		488	1273	475	301	530	402

Parameter concentration in test tissues are not greater than in reference tissues, therefore, no statistical analyses of the data are required.

TABLE 10
CONCENTRATIONS OF DETECTED COMPOUNDS
IN TISSUE SAMPLES OF
M. nasuta
ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF AND BLACK, LA

Parameter	STATION						
	Replicate	True Control	Reference Control	DMMU-1	DMMU-2	DMMU-3	Archive
Metals (mg/kg)							
Arsenic	1	2.02	2.21	1.98	2.18	2.44	2.33
	2	1.98	2.20	1.91	2.39	2.04	2.58
	3	2.18	1.91	1.55	2.23	2.21	2.24
	4	1.75	2.00	1.88	2.08	1.25	1.10
	5	<u>2.19</u>	<u>1.53</u>	<u>1.75</u>	<u>2.08</u>	<u>1.43</u>	<u>2.64</u>
	Total	10.12	7.85	9.07	10.96	9.37	10.89
	Average	2.02	1.57	1.81	2.19	1.87	2.18
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Cadmium	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
	2	0.29	< 0.10	< 0.10	< 0.10	< 0.10	0.32
	3	0.14	< 0.10	< 0.10	< 0.10	< 0.10	0.21
	4	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.10
	5	< <u>0.10</u>	< <u>0.10</u>	< <u>0.10</u>	< <u>0.10</u>	< <u>0.10</u>	< <u>0.10</u>
	Total	0.73	0.50	0.50	0.50	0.50	0.83
	Average	0.15	0.10	0.10	0.10	0.10	0.17
Parameter concentration in test tissues are not greater than in reference tissues, therefore, no statistical analyses of the data are required.							
Chromium	1	0.93	0.30	0.76	0.36	0.36	0.40
	2	1.06	0.51	0.42	0.61	0.24	1.78
	3	2.71	0.42	0.36	1.02	0.71	1.58
	4	0.92	0.47	0.38	0.27	0.25	0.24
	5	<u>0.58</u>	<u>0.62</u>	<u>0.61</u>	<u>0.73</u>	<u>0.49</u>	<u>0.31</u>
	Total	6.20	2.32	2.53	2.99	2.05	4.31
	Average	1.24	0.46	0.51	0.60	0.41	0.86
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Copper	1	3.16	2.60	4.63	2.59	2.27	3.75
	2	4.62	2.66	2.87	2.72	2.89	3.61
	3	4.88	2.29	1.72	2.65	4.62	4.62
	4	3.48	2.15	2.21	2.26	1.71	1.70
	5	<u>3.78</u>	<u>2.90</u>	<u>2.37</u>	<u>2.79</u>	<u>2.35</u>	<u>3.45</u>
	Total	19.92	12.60	13.80	13.01	13.84	17.13
	Average	3.98	2.52	2.76	2.60	2.77	3.43
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Lead	1	0.21	0.35	0.27	0.23	0.23	0.13
	2	0.29	0.35	0.24	0.30	0.24	0.18
	3	0.27	0.31	0.18	0.22	0.31	< 0.10
	4	0.22	0.33	0.20	0.17	0.19	< 0.10
	5	<u>0.22</u>	<u>0.34</u>	<u>0.24</u>	<u>0.28</u>	<u>0.36</u>	<u>0.16</u>
	Total	1.21	1.68	1.13	1.20	1.33	0.67
	Average	0.24	0.34	0.23	0.24	0.27	0.13
Parameter concentration in test tissues are not greater than in reference tissues, therefore, no statistical analyses of the data are required.							

Attachment 6

TABLE 10 (Concluded)
CONCENTRATIONS OF DETECTED COMPOUNDS
IN TISSUE SAMPLES OF
M. nasuta
ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF, AND BLACK, LA.

Parameter	STATION						
	Replicate	True Control	Reference Control	DMMU-1	DMMU-2	DMMU-3	Archive
Nickel	1	0.52	0.51	0.53	0.51	0.46	0.65
	2	1.36	0.52	0.52	0.54	0.46	1.28
	3	1.58	0.49	0.53	0.49	0.53	1.01
	4	0.75	0.46	0.49	0.42	0.40	0.37
	5	<u>0.78</u>	<u>0.46</u>	<u>0.55</u>	<u>0.50</u>	<u>0.48</u>	<u>0.55</u>
	Total	4.99	2.44	2.62	2.46	2.33	3.86
	Average	1.00	0.49	0.52	0.49	0.47	0.77
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Selenium	1	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	4	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	5	< <u>0.20</u>	< <u>0.20</u>	< <u>0.20</u>	< <u>0.20</u>	< <u>0.20</u>	< <u>0.20</u>
	Total	1.00	1.00	1.00	1.00	1.00	1.00
	Average	0.20	0.20	0.20	0.20	0.20	0.20
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Zinc	1	9.95	10.8	8.94	11.0	10.5	10.4
	2	12.0	9.27	8.33	16.0	9.64	15.0
	3	13.5	12.1	7.39	7.52	11.0	11.0
	4	9.88	8.56	10.1	7.75	8.77	6.38
	5	<u>10.6</u>	<u>8.35</u>	<u>8.82</u>	<u>10.1</u>	<u>8.61</u>	<u>12.8</u>
	Total	55.93	49.08	43.58	52.37	48.52	55.58
	Average	11.19	9.82	8.72	10.47	9.70	11.12
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Base/Neutral Compounds (ug/kg)							
Bis (2-ethylhexyl) phthalate	1	36.4	458.0	79.4	191	397	128
	2	253	210.0	131	113	298	134
	3	170	181.0	158	127	258	108
	4	88.0	241.0	233	196	265	134
	5	<u>144</u>	<u>203.0</u>	<u>411</u>	<u>198</u>	<u>203</u>	<u>118</u>
	Total	741.4	1,293	1012	825.0	1421	622.0
	Average	148.3	258.6	202.5	165.0	284.2	124.4
Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.							
Di-n-butyl Phthalate	1	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
	2	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
	3	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0
	4	< 20.0	< 20.0	< 20.0	< 20.0	< 20.0	44.1
	5	< <u>20.0</u>	< <u>20.0</u>	< <u>20.0</u>	< <u>20.0</u>	< <u>20.0</u>	< <u>20.0</u>
	Total	100.0	100.0	100.0	100.0	100.0	124.1
	Average	20.0	20.0	20.0	20.0	20.0	24.8
Parameter concentration in test tissues are not greater than in reference tissues, therefore, no statistical analyses of the data are required.							
Di-n-octyl Phthalate	1	194	1,140	187	459	1,130	256
	2	1,440	440	307	266	806	395
	3	422	321	377	283	1,040	489
	4	205	371	518	491	1,110	583
	5	<u>353</u>	<u>438</u>	<u>924</u>	<u>498</u>	<u>756</u>	<u>556</u>
	Total	2,614	2,710	2,313	1,997	4,842	2,279
	Average	522.8	542.0	462.6	399.4	968.4	455.8

Parameter concentration in test tissues are greater than in reference tissues, therefore, statistical analyses of the data are required.

TABLE D-13
STATISTICAL ANALYSIS
OF M. nasuta
ARSENIC AFTER 28-DAY EXPOSURE
TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	2.21	1.98	2.13	2.44
2	2.20	1.91	2.39	2.04
3	1.91	1.55	1.23	2.21
4	2.00	1.38	2.08	1.25
5	1.53	1.75	2.08	1.43
	----	----	----	----
TOTAL	7.85	8.07	10.96	9.37
MEAN X	1.570	1.614	2.192	1.874
COEF VAR	51.24	8.34	8.85	17.30

THE VARIANCES ARE HETEROGENEOUS AND TRANSFORMATION WILL NOT HELP.

THE KRUSKAL/WALLIS TEST.

CALCULATED H= 6.251 CRITICAL H= 7.915 df= 3

SINCE CALC H <= CRIT H, ACCEPT H₀: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

TABLE D-14
STATISTICAL ANALYSIS
OF M. nasuta
CHROMIUM AFTER 28-DAY EXPOSURE
TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	0.30	0.76	0.36	0.36
2	0.51	0.42	0.61	0.24
3	0.42	0.36	1.02	0.71
4	0.47	0.38	0.27	0.25
5	0.62	0.61	0.73	0.49
	----	----	----	----
TOTAL	2.32	2.53	2.99	2.05
MEAN X	0.464	0.506	0.598	0.410
COEF VAR	25.34	34.22	50.16	47.76

	DF	SUM SQUARES	MEAN SQUARE	F-CALC
	---	-----	-----	-----
TREATMENTS	3	0.095	0.032	0.733
ERROR	16	0.689	0.043	
F-TABULATED				3.240

F-CALC < F-TAB AND THE DIFFERENCE AMONG THE MEANS IS NOT SIGNIFICANT
AT P=0.05.

TABLE D-15
 STATISTICAL ANALYSIS
 OF M. nasuta
 COPPER AFTER 28-DAY EXPOSURE
 TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	2.60	4.63	1.59	2.27
2	2.66	2.87	1.72	2.99
3	2.29	1.72	1.63	4.62
4	2.15	2.21	1.26	1.71
5	2.90	2.37	1.79	2.35
	----	----	----	----
TOTAL	12.60	13.80	13.31	13.84
MEAN X	2.520	2.760	2.602	2.768
COEF VAR	11.91	40.69	7.89	40.34

THE DATA ARE NOT NORMALLY DISTRIBUTED AND TRANSFORMATION WILL NOT HELP.

THE KRUSKAL/WALLIS TEST.

CALCULATED H= 0.097 CRITICAL H= 7.915 df= 3
 SINCE CALC H <= CRIT H, ACCEPT H₀: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

TABLE D-16
 STATISTICAL ANALYSIS
 OF *M. nasuta*
 NICKEL AFTER 28-DAY EXPOSURE
 TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	0.51	0.53	0.51	0.46
2	0.52	0.52	0.54	0.46
3	0.49	0.53	0.49	0.53
4	0.46	0.49	0.42	0.40
5	0.46	0.55	0.50	0.48
	----	----	----	----
TOTAL	2.44	2.62	2.46	2.33
MEAN X	0.488	0.524	0.492	0.466
COEF VAR	5.69	4.18	9.02	10.02

	DF	SUM SQUARES	MEAN SQUARE	F-CALC
	---	-----	-----	-----
TREATMENTS	3	0.009	0.003	2.117
ERROR	16	0.022	0.001	
F-TABULATED				3.240

F-CALC < F-TAB AND THE DIFFERENCE AMONG THE MEANS IS NOT SIGNIFICANT
 AT P=0.05.

TABLE D-17
 STATISTICAL ANALYSIS
 OF *M. nasuta*
 ZINC AFTER 28-DAY EXPOSURE
 TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	10.80	8.94	11.00	10.50
2	9.27	8.33	16.00	9.64
3	12.10	7.39	7.52	11.00
4	8.56	10.10	7.75	8.77
5	8.35	8.82	10.10	8.61
	----	----	----	----
TOTAL	49.08	43.58	52.37	48.52
MEAN X	9.816	8.716	10.474	9.704
COEF VAR	16.28	11.31	32.76	10.79

THE VARIANCES ARE HETEROGENEOUS AND TRANSFORMATION WILL NOT HELP.

THE KRUSKAL/WALLIS TEST.

CALCULATED H= 1.754 CRITICAL H= 7.915 df= 3

SINCE CALC H <= CRIT H, ACCEPT H₀: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

TABLE D-18
STATISTICAL ANALYSIS
OF *M. nasuta*
BIS(2-ETHYLHEXYL) PHTHALATE AFTER 28-DAY EXPOSURE
TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	458.00	79.40	191.00	397.00
2	210.00	131.00	113.00	298.00
3	181.00	158.00	127.00	258.00
4	241.00	233.00	196.00	265.00
5	203.00	411.00	198.00	203.00
	----	----	----	----
TOTAL	1293.00	1012.40	825.00	1421.00
MEAN X	258.600	202.480	165.000	284.200
COEF VAR	43.90	63.75	25.12	25.23

	DF	SUM SQUARES	MEAN SQUARE	F-CALC
	--	-----	-----	-----
TREATMENTS	3	43571.695	14523.898	1.596
ERROR	16	*****	9101.913	
F-TABULATED				3.240

F-CALC < F-TAB AND THE DIFFERENCE AMONG THE MEANS IS NOT SIGNIFICANT
AT P=0.05.

TABLE D-19
 STATISTICAL ANALYSIS
 OF M. nasuta
 DI-N-OCTYL PHTHALATE AFTER 28-DAY EXPOSURE
 TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	1140.00	187.00	459.00	1130.00
2	440.00	307.00	266.00	806.00
3	321.00	377.00	283.00	1040.00
4	371.00	518.00	491.00	1110.00
5	438.00	924.00	498.00	756.00
	----	----	----	----
TOTAL	2710.00	2313.00	1997.00	4842.00
MEAN X	542.000	462.600	399.400	968.400
COEF VAR	62.36	61.47	28.82	18.09

THE DATA ARE NOT NORMALLY DISTRIBUTED AND TRANSFORMATION WILL NOT HELP.

THE KRUSKAL/WALLIS TEST.

CALCULATED H= 7.389 CRITICAL H= 7.915 df= 3

SINCE CALC H <= CRIT H, ACCEPT H₀: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

TABLE D-2
 STATISTICAL ANALYSIS
 OF *N. virens*
 ARSENIC AFTER 28-DAY EXPOSURE
 TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	2.27	2.16	2.25	2.16
2	2.22	2.34	2.19	2.66
3	2.31	2.47	2.29	2.22
4	2.26	2.21	2.39	2.35
5	1.96	2.15	2.30	2.39
	----	----	----	----
TOTAL	11.02	11.33	11.42	11.78
MEAN X	2.204	2.266	2.284	2.356
COEF VAR	6.36	6.04	5.21	5.23

	DF	SUM SQUARES	MEAN SQUARE	F-CALC
	---	-----	-----	-----
TREATMENTS	3	0.059	0.020	0.962
ERROR	16	0.325	0.020	
F-TABULATED				3.240

F-CALC < F-TAB AND THE DIFFERENCE AMONG THE MEANS IS NOT SIGNIFICANT
 AT P=0.05.

TABLE D-3
 STATISTICAL ANALYSIS
 OF *N. virens*
 CADMIUM AFTER 28-DAY EXPOSURE
 TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	0.10	0.15	0.31	0.10
2	0.10	0.10	0.10	0.23
3	0.10	0.10	0.10	0.10
4	0.10	0.10	0.10	0.10
5	0.10	0.10	0.10	0.10
	----	----	----	----
TOTAL	0.50	0.55	0.71	0.63
MEAN X	0.100	0.110	0.142	0.126
COEF VAR	0.00	20.33	66.14	46.14

THE DATA ARE NOT NORMALLY DISTRIBUTED AND TRANSFORMATION WILL NOT HELP.

THE KRUSKAL/WALLIS TEST.

CALCULATED H= 1.139 CRITICAL H= 7.915 df= 3

SINCE CALC H <= CRIT H, ACCEPT H₀: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

TABLE D-4
STATISTICAL ANALYSIS
OF *N. virens*
CHROMIUM AFTER 28-DAY EXPOSURE
TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	0.24	0.89	1.23	1.23
2	0.36	0.19	0.26	1.48
3	0.18	0.25	0.25	4.72
4	0.23	0.22	0.21	0.30
5	0.20	0.21	0.16	0.39
	----	----	----	----
TOTAL	1.21	1.76	2.11	8.12
MEAN X	0.242	0.352	0.422	1.624
COEF VAR	28.98	85.66	107.44	111.17

THE DATA ARE NOT NORMALLY DISTRIBUTED AND TRANSFORMATION WILL NOT HELP.

THE KRUSKAL/WALLIS TEST.

CALCULATED H= 3.078 CRITICAL H= 7.915 df= 3
SINCE CALC H > CRIT H, REJECT H₀: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

SINCE H₀ IS REJECTED, THE DUNN MULTIPLE COMPARISON WILL BE USED.

CONCENTRATION	DIFFERENCE IN MEAN RANKS	CRITICAL VALUE	SIGNIFICANT?
DMMU-1	1.000	7.325	NO
DMMU-2	1.900	7.325	NO
DMMU-3	9.500	7.325	YES

SIGNIFICANCE BETWEEN CONTROL AND TEST AT AN ALPHA LEVEL OF 0.025.

TABLE D-5
 STATISTICAL ANALYSIS
 OF *N. virens*
 COPPER AFTER 28-DAY EXPOSURE
 TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	1.22	1.68	2.12	1.26
2	1.42	1.11	1.62	2.13
3	1.08	1.26	2.65	1.54
4	1.16	1.14	1.34	1.49
5	1.15	7.95	1.29	1.76
	----	----	----	----
TOTAL	6.03	13.14	9.02	8.24
MEAN X	1.206	2.628	1.804	1.648
COEF VAR	10.74	113.54	31.95	21.31

THE DATA ARE NOT NORMALLY DISTRIBUTED AND TRANSFORMATION WILL NOT HELP.

THE KRUSKAL/WALLIS TEST.

CALCULATED H= 6.539 CRITICAL H= 7.915 df= 3
 SINCE CALC H <= CRIT H, ACCEPT H₀: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

TABLE D-6
STATISTICAL ANALYSIS
OF *N. virens*
LEAD AFTER 28-DAY EXPOSURE
TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	0.28	0.26	0.24	0.19
2	0.32	0.17	0.28	0.22
3	0.22	0.27	0.10	0.14
4	0.24	0.22	0.22	0.17
5	0.25	0.43	0.18	0.15
	----	----	----	----
TOTAL	1.31	1.35	1.02	0.87
MEAN X	0.262	0.270	0.204	0.174
COEF VAR	14.88	36.19	33.53	18.44

	DF	SUM SQUARES	MEAN SQUARE	F-CALC
	--	-----	-----	-----
TREATMENTS	3	0.032	0.011	2.547
ERROR	16	0.067	0.004	
F-TABULATED				3.240

F-CALC < F-TAB AND THE DIFFERENCE AMONG THE MEANS IS NOT SIGNIFICANT
AT P=0.05.

TABLE D-7
 STATISTICAL ANALYSIS
 OF *N. virens*
 NICKEL AFTER 28-DAY EXPOSURE
 TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	0.50	0.88	1.60	0.86
2	0.64	0.50	0.63	1.63
3	0.43	0.51	0.49	2.13
4	0.50	0.43	0.49	0.44
5	0.48	0.54	0.47	0.59
	----	----	----	----
TOTAL	2.55	2.86	3.68	5.65
MEAN X	0.510	0.572	0.736	1.130
COEF VAR	15.31	30.91	66.20	63.98

THE VARIANCES ARE HETEROGENEOUS AND TRANSFORMATION WILL NOT HELP.

THE KRUSKAL/WALLIS TEST.

CALCULATED H= 3.028 CRITICAL H= 7.915 df= 3

SINCE CALC H <= CRIT H, ACCEPT H₀: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

TABLE D-8
STATISTICAL ANALYSIS
OF *N. virens*
SELENIUM AFTER 28-DAY EXPOSURE
TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	0.25	0.25	0.20	0.32
2	0.22	0.20	0.20	0.20
3	0.23	0.23	0.20	0.20
4	0.20	0.33	0.27	0.20
5	0.20	0.25	0.20	0.20
	----	----	----	----
TOTAL	1.10	1.26	1.07	1.12
MEAN X	0.220	0.252	0.214	0.224
COEF VAR	9.64	19.11	14.63	23.96

THE DATA ARE NOT NORMALLY DISTRIBUTED AND TRANSFORMATION WILL NOT HELP.

THE KRUSKAL/WALLIS TEST.

CALCULATED H= 3.869 CRITICAL H= 7.915 df= 3

SINCE CALC H <= CRIT H, ACCEPT Ho: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

TABLE D-9
 STATISTICAL ANALYSIS
 OF *N. virens*
 ZINC AFTER 28-DAY EXPOSURE
 TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	8.41	9.25	7.69	7.55
2	8.32	7.50	8.22	11.70
3	8.85	7.96	8.19	9.09
4	7.65	8.19	7.72	8.72
5	9.37	11.80	35.50	3.41
	----	----	----	----
TOTAL	42.60	44.70	67.32	45.47
MEAN X	8.520	8.940	13.464	9.094
COEF VAR	7.52	19.27	91.51	17.20

THE DATA ARE NOT NORMALLY DISTRIBUTED AND TRANSFORMATION WILL NOT HELP.

THE KRUSKAL/WALLIS TEST.

CALCULATED H= 0.664 CRITICAL H= 7.915 df= 3

SINCE CALC H <= CRIT H, ACCEPT H₀: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

TABLE D-10
 STATISTICAL ANALYSIS
 OF *N. virens*
 BUTYL BENZYL PHTHALATE AFTER 28-DAY EXPOSURE
 TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	20.00	76.70	20.00	20.00
2	20.00	20.00	20.00	20.00
3	20.00	20.00	20.00	20.00
4	20.00	20.00	20.00	20.00
5	20.00	20.00	20.00	20.00
	----	----	----	----
TOTAL	100.00	156.70	100.00	100.00
MEAN X	20.000	31.340	20.000	20.000
COEF VAR	0.00	80.91	0.00	0.00

THE DATA ARE NOT NORMALLY DISTRIBUTED AND TRANSFORMATION WILL NOT HELP.

THE KRUSKAL/WALLIS TEST.

CALCULATED H= 3.000 CRITICAL H= 7.915 df= 3

SINCE CALC H <= CRIT H, ACCEPT H₀: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

TABLE D-11
 STATISTICAL ANALYSIS
 OF *N. virens*
 DIETHYL PHTHALATE AFTER 28-DAY EXPOSURE
 TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	20.00	25.30	20.00	20.00
2	20.00	26.20	20.00	20.00
3	20.00	20.00	20.00	20.00
4	20.00	20.00	20.00	20.00
5	20.00	20.00	20.00	20.00
	----	----	----	----
TOTAL	100.00	111.50	100.00	100.00
MEAN X	20.000	22.300	20.000	20.000
COEF VAR	0.00	14.19	0.00	0.00

THE DATA ARE NOT NORMALLY DISTRIBUTED AND TRANSFORMATION WILL NOT HELP.

THE KRUSKAL/WALLIS TEST.

CALCULATED H= 6.316 CRITICAL H= 7.915 df= 3

SINCE CALC H <= CRIT H, ACCEPT H₀: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

TABLE D-12
 STATISTICAL ANALYSIS
 OF *N. virens*
 DI-N-BUTYL PHTHALATE AFTER 28-DAY EXPOSURE
 TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	REFERENCE	DMMU-1	DMMU-2	DMMU-3
1	20.00	38.60	20.00	20.00
2	20.00	31.90	23.60	20.00
3	40.30	25.50	20.00	20.00
4	20.00	20.00	20.00	20.00
5	20.00	20.00	20.00	20.00
	----	----	----	----
TOTAL	120.30	136.00	103.60	100.00
MEAN X	24.060	27.200	20.720	20.000
COEF VAR	37.73	29.56	7.77	0.00

THE DATA ARE NOT NORMALLY DISTRIBUTED AND TRANSFORMATION WILL NOT HELP.

THE KRUSKAL/WALLIS TEST.

CALCULATED H= 4.767 CRITICAL H= 7.915 df= 3

SINCE CALC H <= CRIT H, ACCEPT H₀: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

TABLE D-4a
 STATISTICAL ANALYSIS
 OF *N. virens*
 CHROMIUM AFTER 28-DAY EXPOSURE
 TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	T.CONTROL	DMMU-1	DMMU-2	DMMU-3
1	0.59	0.89	1.23	1.23
2	0.23	0.19	0.26	1.48
3	0.28	0.25	0.25	4.72
4	1.85	0.22	0.21	0.30
5	0.51	0.21	0.16	0.39
	----	----	----	----
TOTAL	3.46	1.76	2.11	8.12
MEAN X	0.692	0.352	0.422	1.624
COEF VAR	96.07	85.66	107.44	111.17

THE DATA ARE NOT NORMALLY DISTRIBUTED AND TRANSFORMATION WILL NOT HELP.

THE KRUSKAL/WALLIS TEST.

CALCULATED H= 7.563 CRITICAL H= 7.915 df= 3

SINCE CALC H <= CRIT H, ACCEPT Ho: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

TABLE D-4b
STATISTICAL ANALYSIS
OF *N. virens*
CHROMIUM AFTER 28-DAY EXPOSURE
TO ATCHAFALAYA SEDIMENTS 2002

REPLICATE	ARCHIVE	DMMU-1	DMMU-2	DMMU-3
1	0.38	0.89	1.23	1.23
2	0.31	0.19	0.26	1.48
3	0.34	0.25	0.25	4.72
4	1.47	0.22	0.21	0.30
5	0.37	0.21	0.16	0.39
	----	----	----	----
TOTAL	2.87	1.76	2.11	8.12
MEAN X	0.574	0.352	0.422	1.624
COEF VAR	87.39	85.66	107.44	111.17

THE DATA ARE NOT NORMALLY DISTRIBUTED AND TRANSFORMATION WILL NOT HELP.

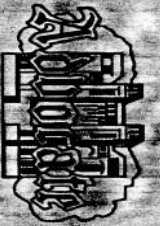
THE KRUSKAL/WALLIS TEST.

CALCULATED H= 8.691 CRITICAL H= 7.915 df= 3
SINCE CALC H > CRIT H, REJECT H₀: ALL GROUPS ARE EQUAL AT ALPHA = 0.05.

SINCE H₀ IS REJECTED, THE DUNN MULTIPLE COMPARISON WILL BE USED.

CONCENTRATION	DIFFERENCE IN MEAN RANKS	CRITICAL VALUE	SIGNIFICANT?
DMMU-1	6.400	7.325	NO
DMMU-2	5.700	7.325	NO
DMMU-3	2.900	7.325	NO

SIGNIFICANCE BETWEEN CONTROL AND TEST AT AN ALPHA LEVEL OF 0.025.



(225) 383-1111

FED ID NO 72-0146160

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LEGAL ADVERTISING INVOICE

*** ORIGINAL INVOICE ***

US ARMY COE - L MATHIES
(CEMVN-OD-T)
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PUBLIC NOTICE

Notice is hereby given that the United States Army Corps of Engineers, New Orleans District has reported to the Louisiana Department of Environmental Quality, Office of Environmental Services for a Water Quality Certification in accordance with statutory authority contained in the LAC 33 IX 1507 A-E, and provisions of Section 401 of the Clean Water Act (P.L. 95-217) to construct five advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayou de l'Enfer, Broussard, and Bayou de l'Enfer, and to designate additional disposal areas on the west of the bar channel descending St. Martin and St. Mary Parishes in Louisiana.

Registrations and Certifications Section

Baton Rouge, LA 70824-2195
Telephone: (225) 763-5665
A copy of the application is available for inspection and review at the LDEQ Public Records Center, Room 4400, 7290 Bluebonnet Boulevard, Baton Rouge, Louisiana. Viewing hours are Monday-Friday 9 a.m. to 4:30 p.m. (excluding holidays).
2392592-may 23-11

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T0239259205	WQC02021902 ST MARTIN & ST MARY	05/23/02	05/23/02	1	51.00	105.35

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PROOF OF PUBLICATION

The hereto attached notice was
published in **THE ADVOCATE**,
a daily newspaper of general circulation
published in Baton Rouge, Louisiana,
and the Official Journal
of the State of Louisiana,
the City of Baton Rouge,
and the Parish of East Baton Rouge,
in the following issues:


05/23/02



Legal/Public Notices Representative

Sworn and subscribed before me
by the person whose signature appears above
in Baton Rouge, Louisiana, on

May 23, 2002



Notary Public

My Commission Expires: Indefinite

PUBLIC NOTICE

Notice is hereby given that the United States Army Corps of Engineers, New Orleans District has applied to the Louisiana Department of Environmental Quality, Office of Environmental Services for a Water Quality Certification in accordance with statutory authority contained in the LAC 33:IX.1507 A-E, and provisions of Section 401 of the Clean Water Act (P.L. 95-217) to construct five advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayou d'Orleans, Boeuf, and Black and designate additional disposal areas on the west or right descending bank of the bar channel in St. Martin and St. Mary Parishes in Louisiana. Comments concerning this application can be filed with the Registrations and Certifications Section within ten days of this notice by referencing WQC 020219-02 to the following address:

Louisiana Department of
Environmental Quality
Registrations and
Certifications Section

P.O. Box 82135
Baton Rouge, LA 70884-2135

Telephone: (225) 765-0665

A copy of the application is available for inspection and review at the LDEQ Public Records Center, Room 4400, 7290 Bluebonnet Boulevard, Baton Rouge, Louisiana. Viewing hours are from 7:30 a.m. to 4:30 p.m. Monday-Friday (except holidays). 2392592-may 23-02

ORIGINAL SENT TO
DEPT OF ENVIRONMENTAL
QUALITY

US ARMY COE - L MATHIES
(CEMVN-OD-T)
PO BOX 60267
NEW ORLEANS

LA 70160



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

Operations Division
Technical Support Branch

MAY 16 2002

Ms. Susan Bush
The Advocate of Baton Rouge
Post Office Box 588
Baton Rouge, Louisiana 70821

Dear Ms. Bush:

The enclosed Public Notice is to be published one time in The Advocate of Baton Rouge to satisfy a State of Louisiana requirement to obtain a Water Quality Certificate, referenced as WQC 020219-02. Please forward one copy of the Proof of Publication to the New Orleans District, ATTN: Linda G. Mathies (CEMVN-OD-T) and one copy to the Louisiana Department of Environmental Quality, Registrations and Certifications, Post Office Box 82135, Baton Rouge, Louisiana, 70884-2135. Payment for printing costs will be by credit card. This credit card account number can be obtained by contacting Ms. Deborah Criswell at telephone (504) 862-2359. Please provide Ms. Criswell with the exact dollar amount of the cost and identify the associated Public Notice by its project designation.

If you require additional information, please contact me at (504) 862-2504.

Sincerely,

Attachment

Linda G. Mathies
Chief, Environmental Function

PUBLIC NOTICE TO BE RUN IN

THE ADVOCATE OF BATON ROUGE

PO Box 588

Baton Rouge, LA 70821

Phone: (225) 388-0128

Fax: (225) 388-0164

Attn: Public Notices

Notice is hereby given that the United States Army Corps of Engineers, New Orleans District has applied to the Louisiana Department of Environmental Quality, Office of Environmental Services for a Water Quality Certification in accordance with statutory authority contained in the LAC 33:IX.1507.A-E, and provisions of Section 401 of the Clean Water Act (P.L. 95-217) to construct five advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black and designate additional disposal areas on the west or right-descending bank of the bar channel in St. Martin and St. Mary Parishes in Louisiana.

Comments concerning this application can be filed with the Registrations and Certifications Section within ten days of this notice by referencing WQC 020219-02 to the following address:

Louisiana Department of Environmental Quality
Registrations and Certifications Section
P.O. Box 82135
Baton Rouge, LA 70884-2135
Telephone: (225) 765-0665

A copy of the application is available for inspection and review at the LDEQ Public Records Center, Room 4400, 7290 Bluebonnet Boulevard, Baton Rouge, Louisiana. Viewing hours are from 7:30 a.m. to 4:30 p.m., Monday-Friday (except holidays).



State of Louisiana
Department of Environmental Quality



M. J. "MIKE" FOSTER, JR.
GOVERNOR

May 8, 2002

J. DALE GIVENS
SECRETARY

Ms. Linda Mathies
USCOE, New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Water Quality Certification (WQC 020219-02)
Corps of Engineers Permit (EA #348)
St. Martin and St. Mary Parishes

Dear Ms. Mathies,

We have received notification of your application for a Water Quality Certification to construct five advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black and designate additional disposal areas on the west or right-descending bank of the bar channel in St. Martin and St. Mary Parishes.

Enclosed is a copy of a public notice to be published by you one time in the official State Journal, THE ADVOCATE of Baton Rouge. (As provided for by LRS 30:2074 A(3), the cost of this publication is to be at your expense). PLEASE REQUEST THAT THE ADVOCATE OF BATON ROUGE FURNISH US WITH PROOF OF PUBLICATION OF THIS NOTICE.

A ten-day period after the date of publication will allow for public comment. After this ten-day period has expired, a decision as to whether to grant Water Quality Certification will be made in accordance with LAC 33:IX.1507.A-E and provisions of Section 401 of the Clean Water Act (Public Law 95-217).

If we haven't received this information within 30 days from the date of this letter, your application will be inactive. If you have any questions, please call Tessa Roy at 225-765-0665.

Sincerely,

for Tessa Roy

Larry M. Wiesepape
Environmental Scientist Supervisor
Registrations and Certifications Section

LMW/tmr

Attachment





REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

Operations Division
Technical Support Branch

FEB 7 2002

SUBJECT: Request for Water Quality Certification

Mr. Larry Wiesepape
Certifications Coordinator
Office of Water Resources
Louisiana Department of
Environmental Quality
Post Office Box 82215
Baton Rouge, Louisiana 70884-2251

Dear Mr. Wiesepape:

We are submitting an application for water quality certification for the continued maintenance of the Atchafalaya River bar channel in association with the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, project (attachment 1). The following work is proposed: construction of five (5) advanced maintenance test sections to -28.0 feet Mean Low Gulf and designation of an additional Section 404 disposal area and selection of an additional ocean dredged material disposal site on the west or right descending bank of the bar channel (attachment 2).

Based on New Orleans District's (NOD) 1996 sampling and analyses of sediment proposed for dredging in the Atchafalaya River bar channel, and Coast Guard spill reports from January 1993 to the present, we have no reason to believe that the dredged material from the proposed construction of the advanced maintenance test sections or the shoal material from the bar channel is unsuitable for disposal into ocean waters. These data sets are available at NOD for your review. NOD will be performing additional sampling and analysis of sediment from the bar channel in accordance with the current national guidance manual, *Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual*, within the next few months. Results from these tests will be made available to your office when they have been completed. We have no reason to believe that conditions have changed since the 1996 sampling and analyses were performed. Therefore, we believe that the proposed discharge of dredged material from construction of the advanced maintenance test sections and from routine maintenance of the navigation channel would have no adverse impact on water quality.

If you require additional information, please contact me at (504) 862-2318.

Sincerely,

A handwritten signature in black ink, reading "Linda G. Mathies". The signature is written in a cursive style with a large, stylized "L" and "M".

Linda G. Mathies
Chief, Environmental Function

Attachments

Army Permit Attachment 1

Public reporting burden for this collection of information is estimated to average 5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Service Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302; and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003), Washington, DC 20503. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authority: 33 USC 401, Section 10; 1413, Section 404. Principal Purpose: These laws require permits authorizing activities in, or affecting, navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. Routine Uses: Information provided on this form will be used in evaluating the application for a permit. Disclosure: Disclosure of requested information is voluntary. If information is not provided, however, the permit application cannot be processed nor can a permit be issued.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETED
--------------------	----------------------	------------------	-------------------------------

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME U.. S. ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT	8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required)
6. APPLICANT'S ADDRESS CEMVN-OD-T POST OFFICE BOX 60267 NEW ORLEANS, LA 70160-0267	9. AGENT'S ADDRESS
7. APPLICANT'S PHONE NOS. W/AREA CODE a. Residence b. Business (504) 862-2318	10. AGENT'S PHONE NOS. W/AREA CODE a. Residence b. Business

11. STATEMENT OF AUTHORIZATION

I hereby authorize, _____ to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

APPLICANT'S SIGNATURE

DATE

NAME, LOCATION AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)
ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF, AND BLACK, LA - Construction of five (5) advanced maintenance test sections to -28.0 feet Mean Low Gulf in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, project and designation of an additional Section 404 disposal area and selection of an additional ocean dredged material disposal site on the west or right-descending bank of the bar channel for placement of dredged material removed from the bar channel.

13. NAME OF WATERBODY, IF KNOWN (if applicable)
ATCHAFALAYA RIVER

14. PROJECT STREET ADDRESS (if applicable)

15. LOCATION OF PROJECT

ST. MARY / ST. MARTIN PARISHES
COUNTY

LOUISIANA
STATE

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN, (see instructions)

17. DIRECTIONS TO THE SITE

18. Nature of Activity (Description of project, include all features)

Construction of five (5) advanced maintenance test sections in the bar channel of the Atchafalaya River between C/L Station 716+00 and C/L Station 1086+00. Test sections would be approximately 2000 feet apart and would be constructed to a depth of -28 feet Mean Low Gulf. First four (4) test sections would be 6000 feet in length; fifth test section would be 5000 feet in length. All test sections would be 375 feet wide. Approximately 1,680,000 cubic yards of dredged material would be removed during construction of the test sections and would be placed into the proposed additional disposal sites on the west or right-descending bank of the bar channel.

Designation of an additional Section 404 disposal areas and selection of an additional ocean dredged material disposal site on the west or right-descending bank of the bar channel to be used for the placement of dredged material from the Atchafalaya River bar channel.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The presence of "fluff" or fluid mud in the bar channel of the Atchafalaya River bar channel has made it difficult for the New Orleans District to provide a reliable, navigable -20-foot channel through the bar. The test sections are being constructed and shoaling rates monitored to test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time between maintenance events. Selection and designation of additional disposal sites on the west or right-descending bank of the bar channel is being done in response to concerns that that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ocean dredged material disposal site, is being transported back into the navigation channel.

USE BLOCKS 20-22 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Dredged material would be discharged into the proposed additional disposal sites to test the hypothesis that increased advanced maintenance will provide a more reliable channel for a longer period of time between maintenance events and to provide Congressionally-authorized depths for navigation traffic to the Port of Morgan City.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards

Both new work or virgin material from the advanced maintenance test sections and shoal material from maintenance of the bar channel would be placed in the proposed disposal sites on the west or right-descending bank of the channel. Approximately 1,680,000 cubic yards would be discharged during construction of the test sections and approximately 12,000,000 cubic yards of shoal material would be removed annually from the bar channel.

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

The proposed Section 404 disposal area covers approximately 2200 acres of water bottom and the proposed ocean dredged material disposal sites covers approximately 35,000 acres of water bottom.

23. Is Any Portion of the Work Already Complete? Yes No IE YES, DESCRIBE THE COMPLETED WORK

24. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list).

25. List of Other Certifications or Approvals/Denials Received from other Federal, State or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

*Would include but is not restricted to zoning, building and flood plain permits

26. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT

DATE

SIGNATURE OF AGENT

DATE

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

PROJECT DESCRIPTION

The U. S. Army Engineer District, New Orleans (NOD), proposes to construct advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act (CWA) of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel.

PROJECT PURPOSE: The Final Environmental Impact Statement (FEIS), Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana; the Final Supplement to the FEIS, Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana; and a Supplemental Information Report, Atchafalaya River and Bayous Chene, Boeuf, and Black, assessed the impacts of operation and maintenance of the authorized navigation channel to a depth of 20 feet with 2 feet of advanced maintenance and 2 feet of allowable overdepth from the U.S. Highway 90 crossing over Bayou Boeuf to the Gulf of Mexico via the Gulf Intra-coastal Waterway, Bayou Chene, Avoca Island Cutoff, the Lower Atchafalaya River, and across Atchafalaya Bay to the Gulf of Mexico (Figure 1). Historically, the navigation channel has been maintained to a depth of 24 feet (20 feet deep with 2 feet advanced maintenance and 2 feet of allowable overdepth).

Currently, the presence of “fluff” or fluid mud (terms used interchangeably herein) in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project has made it difficult to provide a reliable, navigable -20-foot channel through the bar. The “fluff” returns to the channel within weeks after maintenance dredging is complete and interferes with the passage of certain types of vessels to the Port of Morgan City.

The NOD has committed to more frequent maintenance dredging in the bar channel to alleviate the “fluff” problems. The NOD also has tasked the Engineering Research and Development Center (ERDC) to conduct studies in the bar channel and make recommendations for a permanent resolution of the fluid mud issue. The ERDC studies are designed to determine the fate of dredged material placed into the existing ODMDS; to investigate alternative locations for the Atchafalaya River bar channel ODMDS; to determine if deepening the bar channel would alleviate the “fluff” problem; to recommend special survey techniques to identify fluid mud layers; to determine if sectional advanced maintenance would provide shoal storage and make the deepened portion of the channel more hydraulically efficient; and to investigate non-traditional channel training works to increase sediment transport capacity and reduce the annual shoaling volume.

In response to a proposal from the ERDC, the NOD proposes to construct five (5) advanced maintenance test sections in the bar channel in that portion of channel with the most rapid shoaling rate. The test sections would be constructed to a depth of -28.0 feet Mean Low Gulf (MLG), i.e., 4 feet below the currently maintained depth of -24 feet MLG. Construction of the proposed test sections and monitoring of shoaling rates in the sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period

of time between maintenance events.

The NOD also is proposing selection and designation of additional disposal sites on the west or right-descending bank of the bar channel in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being transported back into the navigation channel by prevailing littoral currents. The NOD would select and use the proposed ODMDS under its Section 103 authority for five years and would designate and use the Section 404 site for the same period. The ERDC and the NOD would analyze dredging records and surveys of the ODMDS and the navigation channel to test the hypothesis that placement of dredged material from maintenance of the bar channel on the west side of the channel will decrease the shoaling rate and the frequency of maintenance dredging. If monitoring indicates that placement of dredged material on the west side/right-descending bank of the bar channel decreases the frequency and need for maintenance of the bar channel, the NOD would request that the Environmental Protection Agency (EPA) designate the proposed Section 103 site pursuant to Section 102 (c) for continuing use.

PROPOSED ACTION: Five (5) advanced maintenance test sections would be constructed in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, project between C/L Station 716+00 and C/L Station 1086+00 (Figure 2). The test sections would be approximately 2000 feet apart and would be constructed to a depth of -28 feet MLG. The four (4) test sections on the upper end of the bar channel would be 6000 feet in length; the fifth test section would be 5000 feet in length. Test sections would be 375 feet wide, slightly narrower than the authorized width of the navigation channel, to allow continuous side slopes of about 1:3 and to avoid de-stabilizing the slopes. Approximately 1,680,000 cubic yards of dredged material would be removed during construction of the proposed advanced maintenance test sections and would be placed into proposed disposal sites on the west or right-descending bank of the channel.

An additional Section 404 disposal area would be designated pursuant to Section 404 of the CWA and an additional ODMDS would be selected pursuant to Section 103 (b) of the MPRSA. Both of the proposed disposal sites would be located on the west or right-descending bank of the navigation channel and would be used for the placement of dredged material from the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, project.

DISPOSAL SITES: The proposed Section 404 disposal site is rectangular-shaped, approximately 3.0 miles wide by 1.1 miles long, parallel to the Atchafalaya River bar channel and on the west side or right-descending bank. The site encompasses approximately 220 acres of shallow open water. The inner limit of the proposed Section 404 disposal site is approximately 2640 feet from the centerline of the navigation channel (Figure 3).

Coordinates of the four corners of the proposed Section 404 disposal site are as follows:

29° 23' 14" N, 91° 26' 35" W
29° 21' 38" N, 91° 24' 14" W
29° 24' 02" N, 91° 25' 53" W
29° 22' 25" N, 91° 23' 32" W

The proposed ODMDS is rectangular-shaped, approximately 3.0 miles wide by 18 mile long, parallel to the Atchafalaya River bar channel and on the west side or right-descending bank. The proposed site encompasses approximately 35,000 acres of open water. The inner limit of the proposed ODMDS is approximately 2640 feet from the centerline of the navigation channel (Figure 3).

Coordinates of the four corners of the proposed ODMDS are as follows:

29° 23' 14" N, 91° 26' 35" W
29° 21' 38" N, 91° 24' 14" W
29° 09' 16" N, 91° 35' 12" W
29° 10' 52" N, 91° 37' 33" W

The center of the proposed site is approximately 19 miles from the mainland coast. Soundings of the site range from approximately 6 to 21 feet MLG and its area is approximately 54 square miles.

HISTORICAL SITE USE: The existing Section 404 disposal site on the east or left-descending bank of the navigation channel has been used annually for placement of dredged material from maintenance of the Atchafalaya River bar channel since 1992. Only material suitable for stacking to construct islands for colonial nesting seabirds has been placed at the site. Historically, this has been the dredged material removed between C/L Station 475+00 and C/L Station 650+00. The quantity of dredged material placed into the site each year has ranged from 390,000 cubic yards to 2,998,774 cubic yards.

As an interim- and Section 102-designated ODMDS, the existing ODMDS on the east or left-descending bank of the navigation channel has been used annually except for 1978, 1980, and 1982 for the placement of material dredged from the Atchafalaya River bar channel. The quantity of dredged material discharged into the site each year has ranged from 1,000,000 cubic yards to 14,000,000 cubic yards. Discharge of dredged material into the site has had no apparent adverse environmental impacts outside the disposal site boundary.

ANTICIPATED SITE USE: Maintenance dredging of the Atchafalaya River bar channel is required on an annual basis and only dredged material from the navigation channel would be disposed into the proposed Section 404 disposal site and into the proposed ODMDS. Dredged Material would be removed using hydraulic cutterhead pipeline dredges and/or hopper dredges. Cutterhead dredges would discharge dredged material into the proposed Section 404 disposal site and into the proposed ODMDS as a non-cohesive slurry through a floating pipeline. Hopper

dredges would perform agitation dredging and would haul dredged material to the ODMDS. The dredged material generally is comprised of silty-clay with traces of sand.

Dredges would be assigned to the bar channel anytime surveys indicate that shoaling has compromised the authorized navigation channel. When a dredge is working in the bar channel, disposal operations will occur 24 hours a day, 7 days a week until authorized channel dimensions are restored.

Dredged material would be placed into the proposed Section 404 disposal site unconfined and in a manner conducive to creation of islands for colonial nesting seabirds. The initial height of the dredged material disposal mounds would be no higher than +8.0 feet Mean Low Gulf. The optimum final grade area of the created islands would range from 5 to 25 acres depending on the particular assemblage of birds for which an island is created. The subaerial edges of the created islands would be at least 1000 feet apart. From 400,000 to 2,000,000 cubic yards of dredged material would be placed annually into the proposed Section 404 disposal site.

Dredged material would be discharged into the proposed ODMDS in a manner that would ensure that direct impacts of the disposal would be within the limits of the site. From 9,000,000 to 12,000,000 cubic yards of dredged material would be discharge annually in the proposed ODMDS.

It is anticipated that annual maintenance of the Atchafalaya River bar channel will continue in the future. Disposal of dredged material into the proposed Section 404 disposal site will continue until the site is filled. Disposal of dredged material into the proposed ODMDS would be limited to five years unless monitoring indicates that placement of dredged material into the site is adversely impacting the environment or other uses of the ocean, or the EPA designates the ODMDS for continuing use pursuant to Section 102 (c) of the MPRSA.

SECTION 404(b)(1) GUIDELINES: Placement of dredged material removed from the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, project into the proposed Section 404 disposal site would be made through application of guidelines promulgated by the Administrator, EPA, in conjunction with the Secretary of the Army. If these guidelines alone prohibit the placement of dredged material into the proposed disposal area, any impairment to the maintenance of navigation and anchorage that would result from failure to use the proposed disposal site also would be considered.

MARINE PROTECTION, RESEARCH, AND SANCTUARIES ACT: The U.S. Army Engineer District, New Orleans proposes to select the ODMDS on the west or right-descending bank of the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, project pursuant to Section 103(b) of the MPRSA. The criteria and factors established in Section 102(a) of the MPRSA relating to site selection will be used in selecting the site in a manner consistent with the application of the factors and criteria pursuant to Section 102(c).

The proposed transportation of the dredged material for disposing of it in ocean waters also is being evaluated to determine that the proposed disposal will not unreasonably degrade or

endanger human health, welfare, or amenities or the marine environment, ecological systems, or economic potentialities. In making this determination, the criteria established by the Administrator, EPA pursuant to Section 102(a) of the MPRSA, will be applied. In addition, based upon an evaluation of the potential effects which the failure to utilize this ocean disposal site will have on navigation, economic and industrial development, and foreign and domestic commerce of the United States, an independent determination will be made on the need to dispose of the dredged material in ocean waters, other possible methods of disposal, and other appropriate locations.

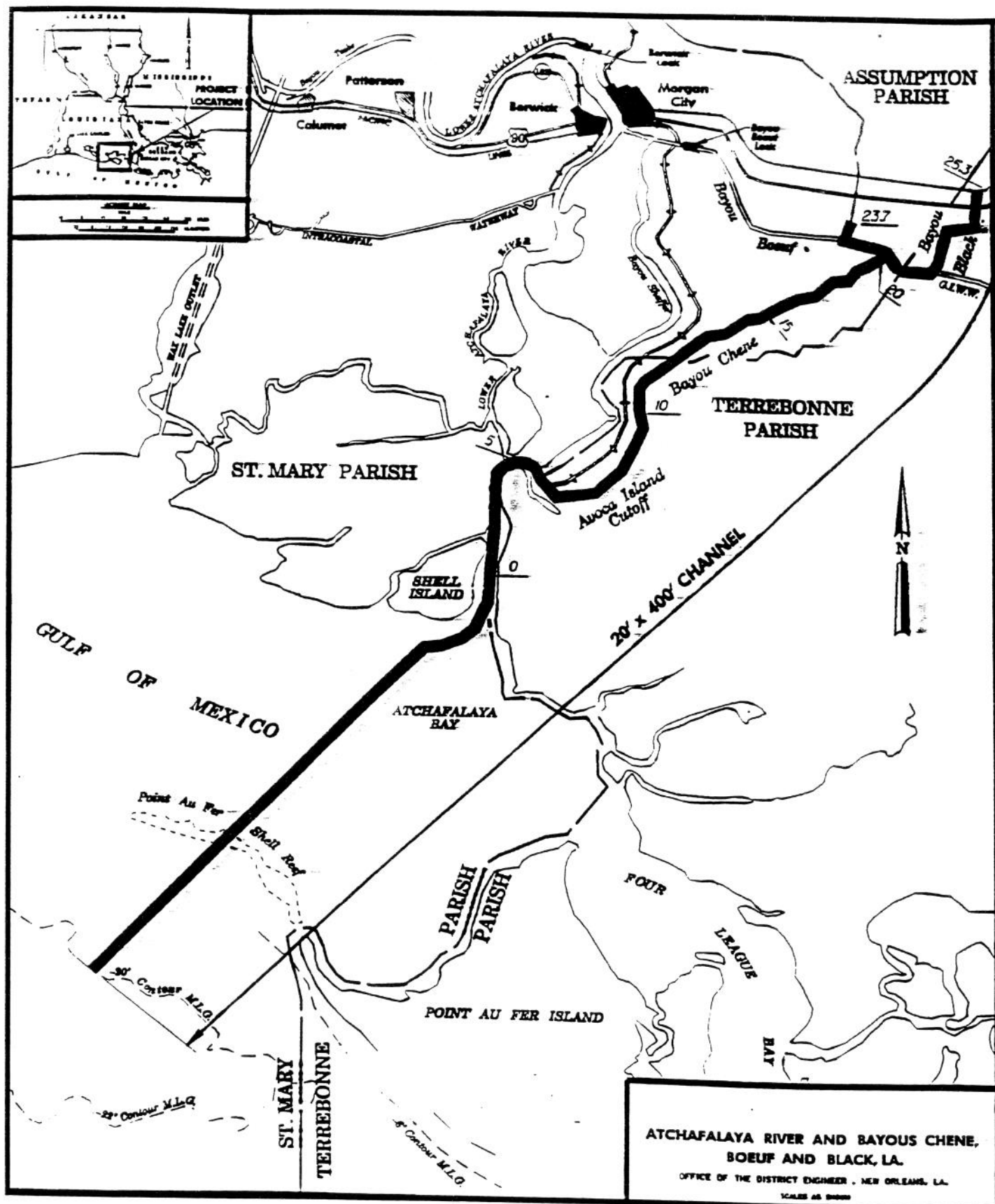


Figure 1

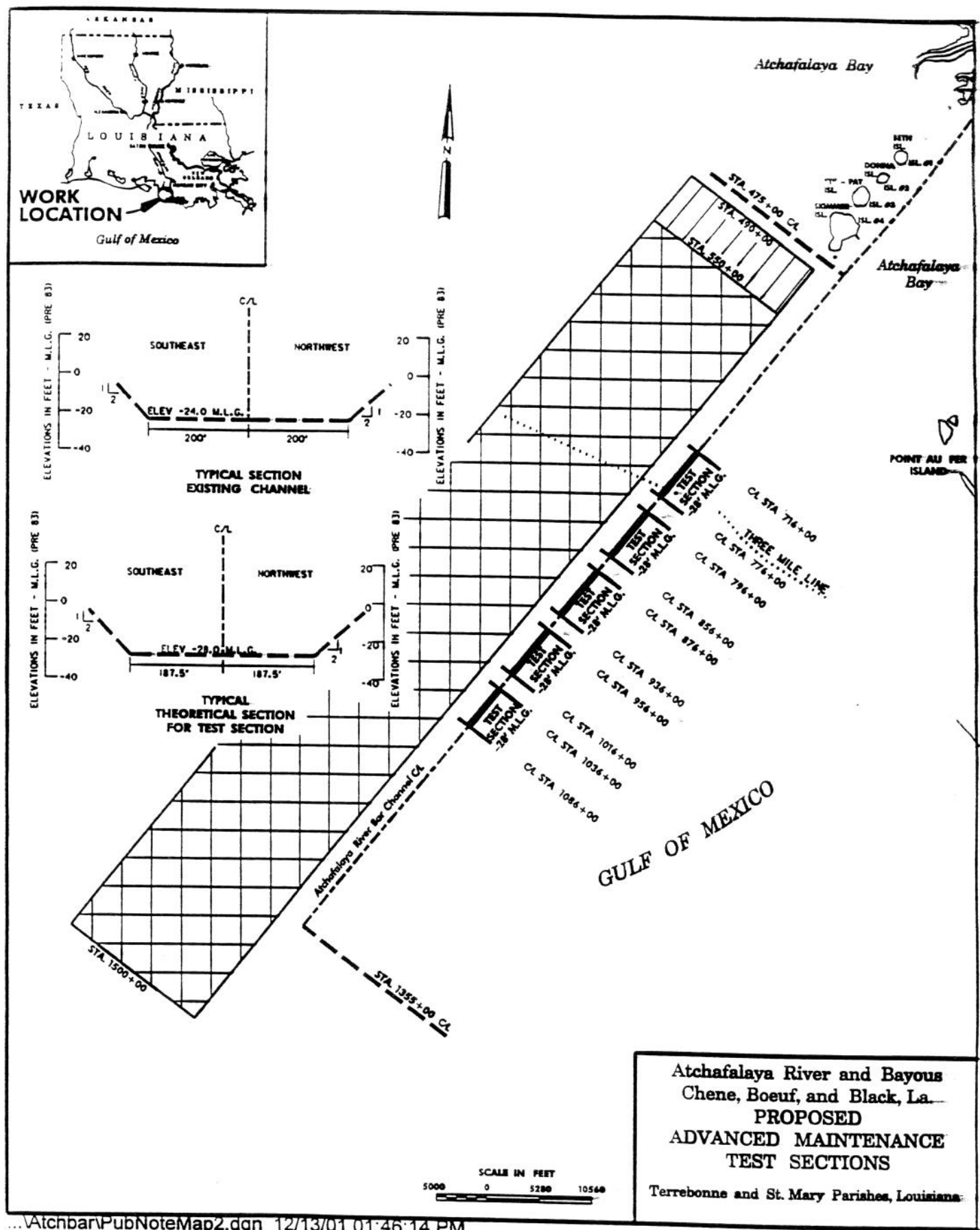
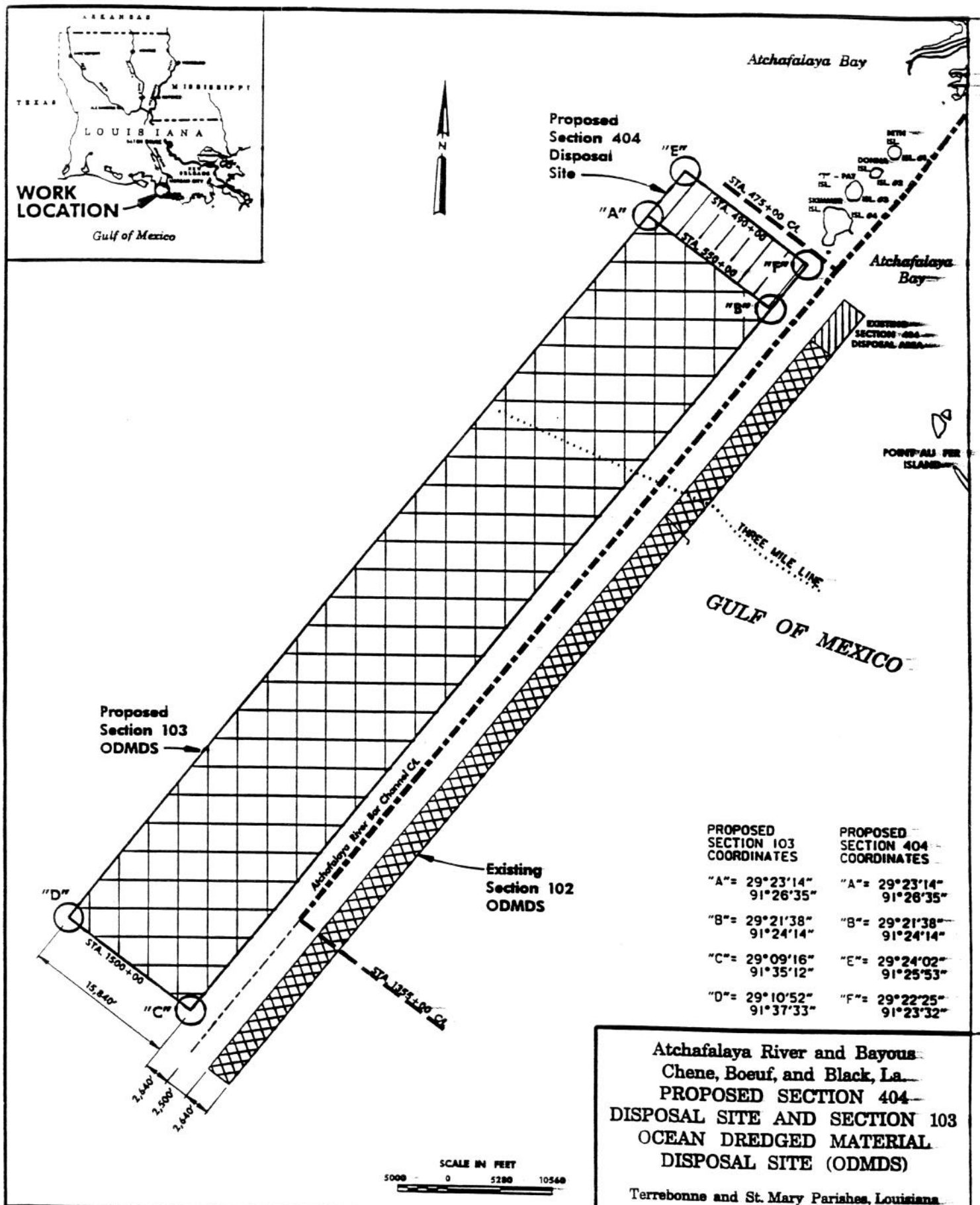


Figure 2



FONSI



DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT, CORPS OF ENGINEERS

P.O. BOX 60267

NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

Planning, Programs, and Project Management Division
Environmental Planning and Compliance Branch

FINDING OF NO SIGNIFICANT IMPACT

ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF AND BLACK, LOUISIANA CONSTRUCTION OF ADVANCED MAINTENANCE TEST SECTIONS AND ADDITIONAL DISPOSAL AREAS IN ATCHAFALAYA RIVER BAR CHANNEL

EA #348

Description of Action. The U.S. Army Corps of Engineers (USACE), New Orleans District, proposes to construct advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act (CWA) of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel. The test sections would be approximately 2,000 feet apart and would be constructed to a depth of -28.0 feet Mean Low Gulf (MLG), i.e., 4 feet below the currently maintained depth of -24 feet MLG. Four 6,000-foot sections and one 5,000-foot section, all 375 feet in width would be excavated and material disposed in the proposed ODMDS on the west or right-descending bank of the Atchafalaya River bar channel. Approximately 350,000 cubic yards of material would be taken from the 6,000-foot sections and 280,000 cubic yards would be taken from the 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging.

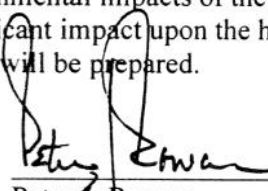
Factors Considered in Determination. Based on an Environmental Assessment (EA #348), the USACE has determined that there would be no adverse impacts to physical elements, biological resources, and other activities/resources.

Public Involvement. The EA was coordinated with the Environmental Protection Agency, U.S. Fish and Wildlife Service, and Louisiana Department of Natural Resources, as well as other concerned governmental agencies and interested parties. These documents are on file at the U.S. Army Corps of Engineers, New Orleans District, and are available to the public upon request.

Conclusion. This office has assessed the environmental impacts of the proposed action and has determined that the action would have no significant impact upon the human environment. Therefore, no Supplemental Environmental Impact Statement will be prepared.

Date

30 July 2002


Peter J. Rowan
Colonel, U.S. Army
District Engineer

EA Cmts



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
9721 Executive Center Dr. N.
St. Petersburg, FL 33702
(727) 570-5312, FAX 570-5517
<http://caldera.sero.nmfs.gov>

FEB 21 2003

F/SER3:SKB

Mr. Christopher Brantley
Planning, Programs, and Management Division
Environmental Planning and Compliance Branch
CEMVN-PM-RP
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Brantley:

This is in response to Mr. Howard R. Bush's April 25, 2002, letter and accompanying Environmental Assessment #348 (EA) regarding: (a) placement of dredged materials (by either cutterhead or hopper dredge) into new disposal areas on the west or right-descending bank of the Atchafalaya River bar channel, St. Mary Parish, Louisiana, (b) temporary deepening (from -24 mean low Gulf [MLG] to -28 feet MLG) of the channel in five selected test areas, and (c) selection of an additional ocean dredged material disposal site. We have reviewed the material submitted by both the U.S. Army Corps of Engineers, New Orleans District (NOD) (i.e., the EA and the draft Finding of No Significant Impact) with respect to possible effects on the species listed under the Endangered Species Act (ESA) under the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) purview.

The Atchafalaya River and Bayous Chene, Boeuf, and Black are dredged annually to -24 ft MLG, usually by cutterhead but most recently by hopper dredge, and between 2-3 million cubic yards of mostly sand (80% sand; 20% silt) is removed to maintain a channel 20 feet wide by 400 feet long. The dredging area includes both a bay and a bar channel. The proposed action is to excavate (by cutterhead or hopper dredge) five advanced maintenance test sections to -28 ft MLG and place the dredged material into new "test" areas along the west bank. Currently, dredge material is placed either along the east side of the bar channel or in an offshore disposal site. Placement of dredge spoil along the west bank of the bar channel into test areas will allow the NOD to monitor shoaling rates and determine if prevailing littoral currents transport dredge materials more quickly from the east versus west bank. Dredging an additional four feet below the currently maintained -24 ft MLG will allow the NOD to determine if channel deepening will reduce annual dredging requirements.

Sea turtles and whales may be present in or near the project area. The potential for take of sea turtles by hopper dredges is well documented and while the potential exists for collisions



between listed whale species and dredges, it is unlikely given this project's close proximity to shore. Notably, the hopper dredging required and performed as a part of this project is considered in NOAA Fisheries' 2002 Regional Gulf of Mexico hopper dredging Biological Opinion (Consultation Number F/SER/2000/01287), and guidelines provided (including the Incidental Take Statement). There is no critical habitat designated in the project area.

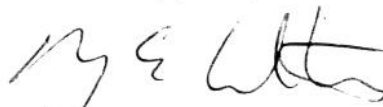
We concur that the temporary excavation of five advanced maintenance test sections to -28 ft MLG, and the proposed placement of dredge materials along the west bank of the bar channel to allow for testing and monitoring of shoaling rates, is not likely to adversely affect listed species under the purview of NOAA Fisheries.

We are unable to provide comments regarding the proposed additional ocean dredged material disposal site (ODMDS). It is our understanding that these offshore sites are managed and permitted by the Environmental Protection Agency (EPA). Please contact the EPA for any required authorization and compliance regarding this project's ODMDS.

We believe that the requirements of section 7 of the ESA have been satisfied and no further consultation with NOAA Fisheries' Protected Resources Office is required provided that the NOD follows the hopper dredging guidelines specified in the 2002 Regional Gulf of Mexico hopper dredging Biological Opinion. However, obligations under section 7 of the Act must be reconsidered if: 1) new information reveals impacts of the identified action that may affect listed species or critical habitat in a manner not previously considered; 2) this action is subsequently modified in a manner which was not considered in this assessment or listed on the draft permit; or 3) a new species is listed or critical habitat designated that may be affected by the identified action.

We look forward to continued cooperation with the NOD in conserving our endangered and threatened resources. If you have any questions, please contact Dr. Stephania Bolden, fishery biologist, at (727)570-5312 or by e-mail at stephania.bolden@noaa.gov.

Sincerely yours,



Roy E. Crabtree, Ph.D.
Regional Administrator

cc: F/PR3
EPA

Ref: I\SER\2002\00701
o:\section7\informal\sturgeon\atchafalaspoildredge
File: 1514-22.f.1 (New Orleans District)

State of Louisiana

JUN 18 2002

M.J. "MIKE" FOSTER, JR.
GOVERNOR



JACK C. CALDWELL
SECRETARY

DEPARTMENT OF NATURAL RESOURCES

June 14, 2002

Mr. Chris Brantley
Planning, Programs and Management Division
U.S. Army Corps of Engineers
New Orleans District
P. O. Box 60267
New Orleans, LA 70160-0267

RE: **C20020162**, Coastal Zone Consistency modification
New Orleans District, Corps of Engineers
Direct Federal Action
Designation of offshore disposal site west of the channel, and construction of advanced maintenance dredging test sections, Atchafalaya River Bar Channel, **St. Mary Parish, Louisiana**

Dear Mr. Brantley:

The above referenced project has been reviewed for consistency with the approved Louisiana Coastal Resource Program (LCRP) as required by Section 307 of the Coastal Zone Management Act of 1972, as amended, and has been found to be consistent with the LCRP. If you have any questions concerning this information request, please contact Jeff Harris of the Consistency Section at (225)342-7949 or 1-800-267-4019.

Sincerely,

Terry W. Howey,
Administrator

cc: Linda Mathies, NOD-COE
Joyce Mazourek, USFWS
Rick Harman, NMFS
Fred Dunham, LDWF
Charlie Mestayer, CMD FI



United States Department of the Interior

FISH AND WILDLIFE SERVICE

646 Cajundome Blvd.

Suite 400

Lafayette, Louisiana 70506

May 24, 2002

Mr. Howard R. Bush, Acting Chief
Environmental Planning and Compliance Branch
U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Mr. Bush:

The U.S. Fish and Wildlife Service (Service) has reviewed your April 25, 2002, Environmental Assessment (EA) No. 348 and draft Finding of No Significant Impact for the proposed "Atchafalaya River and Bayous Chene, Boeuf and Black, Construction of Advanced Maintenance Test Sections and Additional Disposal Areas in the Atchafalaya River Bar Channel, St. Mary Parish, Louisiana" project. That EA evaluates the potential impacts of the proposed project on fish and wildlife resources, including Federally listed threatened and endangered species. The Service has reviewed the information provided and submits the following comments in accordance with provisions of the National Environmental Policy Act of 1969 (83 Stat. 852, as amended; 42 U.S.C. 4321 et seq.), the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), and the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

The Corps of Engineers (Corps) proposes to construct 5 advanced maintenance test sections to a depth of -28 feet Mean Low Gulf (i.e., 4 feet deeper than the currently maintained depth) in that portion of the bar channel with the highest shoaling rate. The information generated by monitoring the subsequent shoaling rates in those sections would determine if increased advanced maintenance dredging would reduce the current frequency of maintenance dredging. The Corps also proposes to designate an additional open-water disposal area for the beneficial use of dredged material and an additional ocean dredged material disposal site to accommodate the spoil from the test sections and maintenance dredging events. Both of those proposed disposal sites would be located on the west (right-descending) bank of the navigation channel because of concerns that dredged material placed into the existing disposal areas on the east (or left-descending bank), and particularly the ODMDS, would be transported back into the navigation channel by littoral currents.

The EA adequately evaluates the impact of the proposed project on fish and wildlife resources. The Corps has already consulted with the National Marine Fisheries Service (NMFS) to avoid

sea turtle mortality while hopper dredging. If hopper dredges are used to dredge the test sections, the Corps will implement all Reasonable and Prudent Measures and Terms and Conditions identified in NMFS' 1995 Biological Opinion. No other Federally listed threatened and endangered species for which the Service is responsible are present within the proposed project area. Therefore, we concur with the Corps' finding that the proposed project is not likely to adversely affect threatened or endangered species. No further consultation will be required unless there are changes in the scope or location of the project, or project construction has not been initiated within 1 year. If the project has not been initiated within 1 year, follow-up consultation should be accomplished with this office prior to making expenditures for construction. If the scope or location of the proposed work is changed, consultation should occur as soon as such changes are made.

We appreciate the opportunity to assist in the early planning stage of this project. If you need further assistance please contact Joyce Mazourek (337/291-3112) of this office.

Sincerely,

A handwritten signature in black ink, appearing to read 'Russell C. Watson', with a long horizontal flourish extending to the right.

Russell C. Watson
Acting Field Supervisor

cc: Chris Brantley, USACE, Environmental Planning and Compliance Branch
NMFS, Baton Rouge, LA
EPA, Dallas, TX
Louisiana Department of Wildlife and Fisheries, Baton Rouge, LA
Louisiana Department of Natural Resources, Baton Rouge, LA



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

April 25, 2002

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

Ms. Laurel Wyckoff
State Historic Preservation Officer
Department of Culture, Recreation and Tourism
P.O. Box 44247
Baton Rouge, LA 70804

Date: <u>5-20-02</u>
No known archaeological sites or historic properties will be affected by this undertaking. This effect determination could change should new information come to our attention.
Laurel Wyckoff: <u><i>Laurel Wyckoff</i></u> State Historic Preservation Officer

Dear Ms. Wyckoff:

Environmental Assessment #348 (EA #348) and a draft Finding of No Significant Impact (FONSI), prepared by the U.S. Army Corps of Engineers, New Orleans District are enclosed for your review and comment.

These documents address the environmental impacts attributed to construction of advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel by the U.S. Army Corps of Engineers, New Orleans District (NOD). The purpose of the proposed action is to select or designate additional disposal sites on the west or right-descending bank of the Atchafalaya River bar channel, St. Mary Parish, Louisiana in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being moved back into the navigation channel by prevailing littoral currents. Approximately 350,000 cubic yards of material would be taken from the four 6,000-foot test sections and 280,000 cubic yards would be taken from the one 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging. Construction of the proposed test sections and monitoring of shoaling rates in the test sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time

DR. TIM J. TREGLE
MAYOR

P. O. Box 1218
Morgan City, Louisiana 70381
Telephone: 985-385-1770
Fax: 985-384-7519
TDD: 985-385-1770
E-mail: c.adair@cityofmc.com



COUNCIL MEMBERS:

JARROD K. LONGMAN - District 1
MAYOR PRO-TEM
RONALD J. RATCLIFF, Sr. - District 2
WILLIAM "Brad" BRADFORD - District 3
LOGAN J. FROMENTHAL, Jr. - District 4
CINDY C. BAILEY - District 5

May 17, 2002

Mr. Christopher Brantley
USACE/Planning, Programs, and Management Division
Environmental Planning and Compliance Branch/CEMVN-PM-RP
P.O. Box 60267
New Orleans, LA 70160-0267

**RE: FONSI for Atchafalaya River and Bayous Chene, Boeuf and Black, Louisiana;
Construction advanced maintenance test sections and additional**

Dear Mr. Brantley:

This letter is to advise that the City of Morgan City has determined that the above referenced project will have "*no significant impact*" on the human environment, physical elements, biological resources and other activities/resources in our vicinity. If you have any questions regarding this matter, or should require any additional information, please contact me at (985) 385-1770.

Sincerely,

CITY OF MORGAN CITY

DERHYL HEBERT
DIRECTOR OF PLANNING & ZONING

Brantley, Christopher G MVN

From: Hiegel, David [David.Hiegel@fema.gov]
Sent: Tuesday, May 14, 2002 9:24 AM
To: 'Christopher.G.Brantley@mvn02.usace.army.mil'
Subject: E A #348

Mr. Brantley,

We thank the USACOE for the opportunity to review and comment on Environmental Assessment #348 concerning disposal of dredged materials in the Atchafalaya River Bar Channel.

Region VI - Federal Emergency Management Agency
Federal Insurance and Mitigation Division

Public Notice Review

Re: Environmental Assessment #348

* We have no comments to offer.

____David Hiegel_____
Reviewer

____May 14, 2002_____
Date

If further information is required, please write to the address above or call (940) 898-5127.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9721 Executive Center Drive North
St Petersburg, Florida 33702

May 1, 2002

F/SER44/RH:jk
225/389-0508

Mr. Christopher Brantley
Environmental Planning and Compliance Branch
U.S. Army Corps of Engineers
CEMVN-PM-RP
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Mr. Brantley:

The National Marine Fisheries Service has received the draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) titled "**Atchafalaya River and Bayous Chene, Boeuf and Black, Louisiana; Construction of Advanced Maintenance Test Sections and Additional Disposal Areas in Atchafalaya River Bar Channel**" (EA #348) which was transmitted for our review by letter dated April 25, 2002. According to the draft EA, the New Orleans District (NOD) proposes to overdredge by 4 feet several sections of the bar channel and to designate water bottoms on the west side of the bar channel for the placement of the dredged material. In the past, sediment dredged from the channel was placed on the east side of the channel. The purpose of the revisions is to determine if overdredging or placement of spoil west of the channel would help maintain the authorized depth for longer periods of time. All proposed work is located in St. Mary Parish, Louisiana.

The EA accurately indicates that project implementation would not constitute a significant adverse impact on Essential Fish Habitat (EFH), Federally-managed species in the Gulf of Mexico, or other marine fishery resources. However, the section titled "FISH RESOURCES" on page 18 of the EA discusses issues and resources more appropriately covered in the "ESSENTIAL FISH HABITAT" section of the document. We recommend this section be revised to indicate that the shallow water in the proposed disposal area provides foraging habitat and migrational pathways for several marine fishery species, including gulf menhaden, Atlantic croaker, sand and spotted seatrout, red and black drum, blue crab, and white and brown shrimp. Additionally, we recommend all references to the Magnuson-Stevens Fishery Conservation and Management Act and EFH be deleted from the "FISH RESOURCES" section of the EA.

We appreciate the opportunity to review and comment on the draft EA and FONSI. Based on our review of the document and knowledge of aquatic resources in the project area, we have no EFH Conservation Recommendation to provide and do not object to the FONSI.



If you have questions or wish to discuss our comments further, please contact Richard Hartman at (225) 389-0508.

Sincerely,



Andreas Mager, Jr.
Assistant Regional Administrator
Habitat Conservation Division

c:
FWS, Lafayette
EPA, Dallas
LA DWF
LA DNR, CMD, Consistency
F/SER4
Files

EA Cover Letter



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

April 25, 2002

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

TO INTERESTED PARTIES

Enclosed are an Environmental Assessment #348 (EA #348) and a draft Finding of No Significant Impact (FONSI) prepared by the U.S. Army Corps of Engineers, New Orleans District.

These documents address the environmental impacts attributed to construction of advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel by the U.S. Army Corps of Engineers, New Orleans District (NOD). The purpose of the proposed action is to select or designate additional disposal sites on the west or right-descending bank of the Atchafalaya River bar channel, St. Mary Parish, Louisiana in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being moved back into the navigation channel by prevailing littoral currents. Approximately 350,000 cubic yards of material would be taken from the four 6,000-foot test sections and 280,000 cubic yards would be taken from the one 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging. Construction of the proposed test sections and monitoring of shoaling rates in the test sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time between maintenance events.

Please review the enclosed documents and provide comments within 30 days of the date of this letter. The FONSI will not be signed until all environmental review and compliance requirements have been completed. A copy of the signed FONSI will be provided upon request.

Comments should be mailed to the attention of Mr. Christopher Brantley; U.S. Army Corps of Engineers; Planning, Programs, and Management Division; Environmental Planning and Compliance Branch; CEMVN-PM-RP; P.O. Box 60267; New Orleans, Louisiana 70160-0267. Comments may also be provided by E-Mail to Christopher.G.Brantley@mvn02.usace.army.mil, or by fax to (504) 862-2572. Mr. Brantley may be contacted at (504) 862-2224, if questions arise.

Sincerely,

A handwritten signature in black ink that reads "Howard R. Bush". The signature is written in a cursive, slightly slanted style.

Howard R. Bush
Acting Chief, Environmental Planning
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

April 25, 2002

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

Ms. Laurel Wyckoff
State Historic Preservation Officer
Department of Culture, Recreation and Tourism
P.O. Box 44247
Baton Rouge, LA 70804

Dear Ms. Wyckoff:

Environmental Assessment #348 (EA #348) and a draft Finding of No Significant Impact (FONSI), prepared by the U.S. Army Corps of Engineers, New Orleans District are enclosed for your review and comment.

These documents address the environmental impacts attributed to construction of advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel by the U.S. Army Corps of Engineers, New Orleans District (NOD). The purpose of the proposed action is to select or designate additional disposal sites on the west or right-descending bank of the Atchafalaya River bar channel, St. Mary Parish, Louisiana in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being moved back into the navigation channel by prevailing littoral currents. Approximately 350,000 cubic yards of material would be taken from the four 6,000-foot test sections and 280,000 cubic yards would be taken from the one 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging. Construction of the proposed test sections and monitoring of shoaling rates in the test sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time

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Comments should be mailed to the attention of Mr. Christopher Brantley; U.S. Army Corps of Engineers; Planning, Programs, and Management Division; Environmental Planning and Compliance Branch; CEMVN-PM-RP; P.O. Box 60267; New Orleans, Louisiana 70160-0267. Comments may also be provided by E-Mail to Christopher.G.Brantley@mvn02.usace.army.mil, or by fax to (504) 862-2572. Mr. Brantley may be contacted at (504) 862-2224, if questions arise.

Sincerely,

A handwritten signature in black ink that reads "Howard R. Bush". The signature is written in a cursive, slightly stylized font.

Howard R. Bush
Acting Chief, Environmental Planning
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

April 25, 2002

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

Mr. Rob Lawrence
Environmental Protection Agency, Region VI
Office of Planning and Coordination
Mail Code 6EN-XP
1445 Ross Avenue
Dallas, TX 75202-2733

Dear Mr. Lawrence:

Environmental Assessment #348 (EA #348) and a draft Finding of No Significant Impact (FONSI), prepared by the U.S. Army Corps of Engineers, New Orleans District are enclosed for your review and comment.

These documents address the environmental impacts attributed to construction of advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel by the U.S. Army Corps of Engineers, New Orleans District (NOD). The purpose of the proposed action is to select or designate additional disposal sites on the west or right-descending bank of the Atchafalaya River bar channel, St. Mary Parish, Louisiana in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being moved back into the navigation channel by prevailing littoral currents. Approximately 350,000 cubic yards of material would be taken from the four 6,000-foot test sections and 280,000 cubic yards would be taken from the one 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging. Construction of the proposed test sections and monitoring of shoaling rates in the test sections would test the hypothesis that increased

advanced maintenance would provide a more reliable channel for a longer period of time between maintenance events.

Please review the enclosed documents and provide comments within 30 days of the date of this letter. The FONSI will not be signed until all environmental review and compliance requirements have been completed. A copy of the signed FONSI will be provided upon request.

Comments should be mailed to the attention of Mr. Christopher Brantley; U.S. Army Corps of Engineers; Planning, Programs, and Management Division; Environmental Planning and Compliance Branch; CEMVN-PM-RP; P.O. Box 60267; New Orleans, Louisiana 70160-0267. Comments may also be provided by E-Mail to Christopher.G.Brantley@mvn02.usace.army.mil, or by fax to (504) 862-2572. Mr. Brantley may be contacted at (504) 862-2224, if questions arise.

Sincerely,

A handwritten signature in black ink that reads "Howard R. Bush". The signature is written in a cursive, slightly slanted style.

Howard R. Bush
Acting Chief, Environmental Planning
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

April 25, 2002

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

Mr. David Fruge
Field Supervisor
U.S. Fish and Wildlife Service
646 Cajundome Blvd., Suite 400
Lafayette, LA 70506

Dear Mr. Fruge:

Environmental Assessment #348 (EA #348) and a draft Finding of No Significant Impact (FONSI), prepared by the U.S. Army Corps of Engineers, New Orleans District are enclosed for your review and comment.

These documents address the environmental impacts attributed to construction of advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel by the U.S. Army Corps of Engineers, New Orleans District (NOD). The purpose of the proposed action is to select or designate additional disposal sites on the west or right-descending bank of the Atchafalaya River bar channel, St. Mary Parish, Louisiana in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being moved back into the navigation channel by prevailing littoral currents. Approximately 350,000 cubic yards of material would be taken from the four 6,000-foot test sections and 280,000 cubic yards would be taken from the one 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging. Construction of the proposed test sections and monitoring of shoaling rates in the test sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time

between maintenance events.

The proposed alternatives are unlikely to adversely affect the continued existence of endangered/threatened species, or adversely impact or destroy critical habitat. Please provide your concurrence, and any comments on the EA within 15 days from the date of this letter. For additional information, contact Mr. Christopher G. Brantley, telephone (504) 862-2528.

Please review the enclosed documents and provide comments within 30 days of the date of this letter. The FONSI will not be signed until all environmental review and compliance requirements have been completed. A copy of the signed FONSI will be provided upon request.

Comments should be mailed to the attention of Mr. Christopher Brantley; U.S. Army Corps of Engineers; Planning, Programs, and Management Division; Environmental Planning and Compliance Branch; CEMVN-PM-RP; P.O. Box 60267; New Orleans, Louisiana 70160-0267. Comments may also be provided by E-Mail to Christopher.G.Brantley@mvn02.usace.army.mil, or by fax to (504) 862-2572. Mr. Brantley may be contacted at (504) 862-2224, if questions arise.

Sincerely,

A handwritten signature in black ink that reads "Howard R. Bush". The signature is written in a cursive, slightly slanted style.

Howard R. Bush
Acting Chief, Environmental Planning
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

April 25, 2002

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

Ms. Georgia Cranmore
National Marine Fisheries Service
Protected Species Division
9721 Executive Center Drive North
St. Petersburg, FL 33702

Dear Ms. Cranmore:

Environmental Assessment #348 (EA #348) and a draft Finding of No Significant Impact (FONSI), prepared by the U.S. Army Corps of Engineers, New Orleans District are enclosed for your review and comment.

These documents address the environmental impacts attributed to construction of advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel by the U.S. Army Corps of Engineers, New Orleans District (NOD). The purpose of the proposed action is to select or designate additional disposal sites on the west or right-descending bank of the Atchafalaya River bar channel, St. Mary Parish, Louisiana in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being moved back into the navigation channel by prevailing littoral currents. Approximately 350,000 cubic yards of material would be taken from the four 6,000-foot test sections and 280,000 cubic yards would be taken from the one 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging. Construction of the proposed test sections and monitoring of shoaling rates in the test sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time

between maintenance events.

The proposed alternatives are unlikely to adversely affect the continued existence of endangered/threatened species, or adversely impact or destroy critical habitat. Please provide your concurrence, and any comments on the EA within 15 days from the date of this letter. For additional information, contact Mr. Christopher G. Brantley, telephone (504) 862-2528.

Please review the enclosed documents and provide comments within 30 days of the date of this letter. The FONSI will not be signed until all environmental review and compliance requirements have been completed. A copy of the signed FONSI will be provided upon request.

Comments should be mailed to the attention of Mr. Christopher Brantley; U.S. Army Corps of Engineers; Planning, Programs, and Management Division; Environmental Planning and Compliance Branch; CEMVN-PM-RP; P.O. Box 60267; New Orleans, Louisiana 70160-0267. Comments may also be provided by E-Mail to Christopher.G.Brantley@mvn02.usace.army.mil, or by fax to (504) 862-2572. Mr. Brantley may be contacted at (504) 862-2224, if questions arise.

Sincerely,

A handwritten signature in black ink that reads "Howard R. Bush". The signature is written in a cursive, slightly slanted style.

Howard R. Bush
Acting Chief, Environmental Planning
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

April 25, 2002

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

Mr. Richard D. Hartman
National Marine Fisheries Service
Habitat Conservation Division
Louisiana State University
Baton Rouge, LA 70803-7535

Dear Mr. Hartman:

Environmental Assessment #348 (EA #348) and a draft Finding of No Significant Impact (FONSI), prepared by the U.S. Army Corps of Engineers, New Orleans District are enclosed for your review and comment.

These documents address the environmental impacts attributed to construction of advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel by the U.S. Army Corps of Engineers, New Orleans District (NOD). The purpose of the proposed action is to select or designate additional disposal sites on the west or right-descending bank of the Atchafalaya River bar channel, St. Mary Parish, Louisiana in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being moved back into the navigation channel by prevailing littoral currents. Approximately 350,000 cubic yards of material would be taken from the four 6,000-foot test sections and 280,000 cubic yards would be taken from the one 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging. Construction of the proposed test sections and monitoring of shoaling rates in the test sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time

between maintenance events.

The proposed alternatives are unlikely to adversely affect the continued existence of endangered/threatened species, or adversely impact or destroy critical habitat. Please provide your concurrence, and any comments on the EA within 15 days from the date of this letter. For additional information, contact Mr. Christopher G. Brantley, telephone (504) 862-2528.

Please review the enclosed documents and provide comments within 30 days of the date of this letter. The FONSI will not be signed until all environmental review and compliance requirements have been completed. A copy of the signed FONSI will be provided upon request.

Comments should be mailed to the attention of Mr. Christopher Brantley; U.S. Army Corps of Engineers; Planning, Programs, and Management Division; Environmental Planning and Compliance Branch; CEMVN-PM-RP; P.O. Box 60267; New Orleans, Louisiana 70160-0267. Comments may also be provided by E-Mail to Christopher.G.Brantley@mvn02.usace.army.mil, or by fax to (504) 862-2572. Mr. Brantley may be contacted at (504) 862-2224, if questions arise.

Sincerely,

A handwritten signature in black ink that reads "Howard R. Bush". The signature is written in a cursive, slightly stylized font.

Howard R. Bush
Acting Chief, Environmental Planning
and Compliance Branch

Enclosures
cf Andreas Mager, Jr.



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

April 25, 2002

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

Mr. Allen Bolotte
District Conservationist
U.S. Natural Resources Conservation Service
P.O. Box 531
Boutte, Louisiana 70039

Dear Mr. Bolotte:

Environmental Assessment #348 (EA #348) and a draft Finding of No Significant Impact (FONSI), prepared by the U.S. Army Corps of Engineers, New Orleans District are enclosed for your review and comment. Also enclosed is a Farmland Conversion Impact Rating with parts I and III completed. You are requested to complete part II to determine if the proposed action would impact lands that may be classified as prime and unique lands under the Farmland Protection Policy Act of 1981.

These documents address the environmental impacts attributed to construction of advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel by the U.S. Army Corps of Engineers, New Orleans District (NOD). The purpose of the proposed action is to select or designate additional disposal sites on the west or right-descending bank of the Atchafalaya River bar channel, St. Mary Parish, Louisiana in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being moved back into the navigation channel by prevailing littoral currents. Approximately 350,000 cubic yards of material would be taken from the four 6,000-foot test sections and 280,000 cubic yards would be taken from the one 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual

Atchafalaya River bar channel dredging. Construction of the proposed test sections and monitoring of shoaling rates in the test sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time between maintenance events.

Please review the enclosed documents and provide comments within 30 days of the date of this letter. The FONSI will not be signed until all environmental review and compliance requirements have been completed. A copy of the signed FONSI will be provided upon request.

Comments should be mailed to the attention of Mr. Christopher Brantley; U.S. Army Corps of Engineers; Planning, Programs, and Management Division; Environmental Planning and Compliance Branch; CEMVN-PM-RP; P.O. Box 60267; New Orleans, Louisiana 70160-0267. Comments may also be provided by E-Mail to Christopher.G.Brantley@mvn02.usace.army.mil, or by fax to (504) 862-2572. Mr. Brantley may be contacted at (504) 862-2224, if questions arise.

Sincerely,

A handwritten signature in black ink that reads "Howard R. Bush". The signature is written in a cursive, slightly slanted style.

Howard R. Bush
Acting Chief, Environmental Planning
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

April 25, 2002

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

Mr. Gary Zimmerer
Federal Emergency Management Administration
Region VI, Federal Center
800 North Loop 288
Denton, TX 76201-3698

Dear Mr. Zimmerer:

Environmental Assessment #348 (EA #348) and a draft Finding of No Significant Impact (FONSI), prepared by the U.S. Army Corps of Engineers, New Orleans District are enclosed for your review and comment.

These documents address the environmental impacts attributed to construction of advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel by the U.S. Army Corps of Engineers, New Orleans District (NOD). The purpose of the proposed action is to select or designate additional disposal sites on the west or right-descending bank of the Atchafalaya River bar channel, St. Mary Parish, Louisiana in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being moved back into the navigation channel by prevailing littoral currents. Approximately 350,000 cubic yards of material would be taken from the four 6,000-foot test sections and 280,000 cubic yards would be taken from the one 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging. Construction of the proposed test sections and monitoring of shoaling rates in the test sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time

between maintenance events.

Please review the enclosed documents and provide comments within 30 days of the date of this letter. The FONSI will not be signed until all environmental review and compliance requirements have been completed. A copy of the signed FONSI will be provided upon request.

Comments should be mailed to the attention of Mr. Christopher Brantley; U.S. Army Corps of Engineers; Planning, Programs, and Management Division; Environmental Planning and Compliance Branch; CEMVN-PM-RP; P.O. Box 60267; New Orleans, Louisiana 70160-0267. Comments may also be provided by E-Mail to Christopher.G.Brantley@mvn02.usace.army.mil, or by fax to (504) 862-2572. Mr. Brantley may be contacted at (504) 862-2224, if questions arise.

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Howard R. Bush
Acting Chief, Environmental Planning
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

April 25, 2002

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

Derhyl Hebert
Dir. of Planning & Zoning
City of Morgan City
P. O. Box 1218
Morgan City, LA 70381

Dear Hebert:

Environmental Assessment #348 (EA #348) and a draft Finding of No Significant Impact (FONSI), prepared by the U.S. Army Corps of Engineers, New Orleans District are enclosed for your review and comment.

These documents address the environmental impacts attributed to construction of advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel by the U.S. Army Corps of Engineers, New Orleans District (NOD). The purpose of the proposed action is to select or designate additional disposal sites on the west or right-descending bank of the Atchafalaya River bar channel, St. Mary Parish, Louisiana in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being moved back into the navigation channel by prevailing littoral currents. Approximately 350,000 cubic yards of material would be taken from the four 6,000-foot test sections and 280,000 cubic yards would be taken from the one 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging. Construction of the proposed test sections and monitoring of shoaling rates in the test sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time

between maintenance events.

Please review the enclosed documents and provide comments within 30 days of the date of this letter. The FONSI will not be signed until all environmental review and compliance requirements have been completed. A copy of the signed FONSI will be provided upon request.

Comments should be mailed to the attention of Mr. Christopher Brantley; U.S. Army Corps of Engineers; Planning, Programs, and Management Division; Environmental Planning and Compliance Branch; CEMVN-PM-RP; P.O. Box 60267; New Orleans, Louisiana 70160-0267. Comments may also be provided by E-Mail to Christopher.G.Brantley@mvn02.usace.army.mil, or by fax to (504) 862-2572. Mr. Brantley may be contacted at (504) 862-2224, if questions arise.

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Howard R. Bush
Acting Chief, Environmental Planning
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

April 25, 2002

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

Mr. Donald Gohmert
State Conservationist
Natural Resources Conservation Service
3737 Government Street
Alexandria, Louisiana 71302

Dear Mr. Gohmert:

Environmental Assessment #348 (EA #348) and a draft Finding of No Significant Impact (FONSI), prepared by the U.S. Army Corps of Engineers, New Orleans District are enclosed for your review and comment.

These documents address the environmental impacts attributed to construction of advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel by the U.S. Army Corps of Engineers, New Orleans District (NOD). The purpose of the proposed action is to select or designate additional disposal sites on the west or right-descending bank of the Atchafalaya River bar channel, St. Mary Parish, Louisiana in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being moved back into the navigation channel by prevailing littoral currents. Approximately 350,000 cubic yards of material would be taken from the four 6,000-foot test sections and 280,000 cubic yards would be taken from the one 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging. Construction of the proposed test sections and monitoring of shoaling rates in the test sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time

between maintenance events.

Please review the enclosed documents and provide comments within 30 days of the date of this letter. The FONSI will not be signed until all environmental review and compliance requirements have been completed. A copy of the signed FONSI will be provided upon request.

Comments should be mailed to the attention of Mr. Christopher Brantley; U.S. Army Corps of Engineers; Planning, Programs, and Management Division; Environmental Planning and Compliance Branch; CEMVN-PM-RP; P.O. Box 60267; New Orleans, Louisiana 70160-0267. Comments may also be provided by E-Mail to Christopher.G.Brantley@mvn02.usace.army.mil, or by fax to (504) 862-2572. Mr. Brantley may be contacted at (504) 862-2224, if questions arise.

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Howard R. Bush
Acting Chief, Environmental Planning
and Compliance Branch

Enclosures

EA CD



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

April 25, 2002

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

Mr. Gregory P. DuCote
Program Manager, Interagency Affairs
Louisiana Department of Natural Resources
Office of Coastal Restoration and Management
P.O. Box 44487
Baton Rouge, LA 70804-4487

Dear Mr. DuCote:

Environmental Assessment #348 (EA #348) and a draft Finding of No Significant Impact (FONSI), prepared by the U.S. Army Corps of Engineers, New Orleans District are enclosed for your review and comment. We request your concurrence with the enclosed Consistency Determination, which addresses the applicable Coastal Use Guidelines. Based on the enclosed information, we believe that the proposed action is consistent, to the maximum extent practicable, with the State of Louisiana's approved Coastal Resources Program.

These documents address the environmental impacts attributed to construction of advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel by the U.S. Army Corps of Engineers, New Orleans District (NOD). The purpose of the proposed action is to select or designate additional disposal sites on the west or right-descending bank of the Atchafalaya River bar channel, St. Mary Parish, Louisiana in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being moved back into the navigation channel by prevailing littoral currents. Approximately 350,000 cubic yards of material would be taken from the four 6,000-foot test sections and 280,000 cubic yards would be taken from the one 5,000-foot

section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging. Construction of the proposed test sections and monitoring of shoaling rates in the test sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time between maintenance events.

Please review the enclosed documents and provide comments within 30 days of the date of this letter. The FONSI will not be signed until all environmental review and compliance requirements have been completed. A copy of the signed FONSI will be provided upon request.

Comments should be mailed to the attention of Mr. Christopher Brantley; U.S. Army Corps of Engineers; Planning, Programs, and Management Division; Environmental Planning and Compliance Branch; CEMVN-PM-RP; P.O. Box 60267; New Orleans, Louisiana 70160-0267. Comments may also be provided by E-Mail to Christopher.G.Brantley@mvn02.usace.army.mil, or by fax to (504) 862-2572. Mr. Brantley may be contacted at (504) 862-2224, if questions arise.

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Howard R. Bush
Acting Chief, Environmental Planning
and Compliance Branch

Enclosures

CONSISTENCY DETERMINATION

Coastal Use Guidelines

Atchafalaya River and Bayous Chene, Boeuf and Black, Louisiana

Construction of Advanced Maintenance Test Sections and Additional Disposal Areas in Atchafalaya River Bar Channel

St. Mary Parish, Louisiana

EA #348

INTRODUCTION

Section 307 of the Coastal Zone Management Act of 1972, 16 U.S.C. 1451 et. seq. requires that "each federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state management programs." In accordance with Section 307, a Consistency Determination has been made for advance maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; designation of an open water area site pursuant to Section 404 of the Clean Water Act of 1977 for the beneficial use of shoal material removed during routine maintenance of the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act of 1972 for material removed from the bar channel, St. Mary Parish, Louisiana. The proposed test sections would be approximately 2,000 feet apart and would be constructed to a depth of -28.0 feet Mean Low Gulf (MLG), i.e., 4 feet below the currently maintained depth of -24.0 feet MLG. Four 6,000-foot sections and one 5,000-foot section, all 375 feet in width would be excavated and material disposed in the proposed ODMDS on the west or right-descending bank of the Atchafalaya River bar channel. Approximately 350,000 cubic yards of material would be taken from the 6,000-foot sections and 280,000 cubic yards would be taken from the 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging.

Coastal Use Guidelines were written in order to implement the policies and goals of the Louisiana Coastal Resources Program, and serve as a set of performance standards for evaluating projects. Compliance with the Louisiana Coastal Resources Program, and therefore, Section 307, requires compliance with applicable Coastal Use Guidelines.

PLAN DESCRIPTION

In response to a recommendation from the Engineering Research and Development Center (ERDC), the U.S. Army Corps of Engineers, New Orleans District (DISTRICT) proposes to

construct five advanced maintenance test sections in that portion of the bar channel with the most rapid shoaling rate (between C/L Station 716+00 and C/L Station 1086+00). The test sections would be approximately 2000 feet apart and would be constructed to a depth of -28.0 feet MLG, i.e., 4 feet below the currently maintained depth of -24 feet MLG. Four 6,000-foot sections and one 5,000-foot section, all 375 feet in width would be excavated and material disposed in the proposed ODMDS. Approximately 350,000 cubic yards of material would be taken from the 6,000-foot sections and 280,000 cubic yards would be taken from the 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging. Construction of the proposed test sections and monitoring of shoaling rates in the test sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time between maintenance events.

Advanced maintenance in longitudinal sections would avoid the undesirable effects on gravitational migration of sediment that would occur with an overall channel deepening. An overall channel deepening is more likely to increase the sediment trapping efficiency of the channel by increasing gravitational circulation. Sectional advanced maintenance deepening is reversible by natural sedimentation, and could be abandoned if proved to be ineffective.

The DISTRICT is also proposing selection and designation of additional disposal sites on the west or right-descending bank of the bar channel in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being moved back into the navigation channel by prevailing littoral currents. The DISTRICT would select and use the proposed ODMDS under its Section 103(b) authority for five years. The ERDC and the DISTRICT would monitor the placement of dredged material from maintenance of the bar channel on the west side of the channel to see if it will decrease the shoaling rate and the frequency of maintenance dredging. If monitoring indicates that placement of dredged material on the west side or right-descending bank of the bar channel decreases the frequency and need for maintenance of the bar channel, the DISTRICT would request the EPA designate the proposed Section 103(b) site pursuant to Section 102 (c) for continuing use, and the DISTRICT would continue to use the proposed Section 404 disposal site.

The proposed Section 404 disposal site is rectangular-shaped, approximately 3.0 miles wide by 1.1 miles long, parallel to the Atchafalaya River bar channel and on the west side or right-descending bank. The site encompasses approximately 2,200 acres of shallow open water. The inner limit of the proposed Section 404 disposal site is approximately 2,640 feet from the centerline of the navigation channel.

Coordinates of the four corners of the proposed Section 404 disposal site are as follows:

29° 23' 14" N, 91° 26' 35" W
29° 21' 38" N, 91° 24' 14" W
29° 24' 02" N, 91° 25' 53" W
29° 22' 25" N, 91° 23' 32" W

The proposed ODMDS is rectangular-shaped, approximately 3.0 miles wide by 18 miles long, parallel to the Atchafalaya River bar channel and on the west side or right-descending bank. The

proposed site encompasses approximately 35,000 acres of open water. The inner limit of the proposed ODMDS is approximately 2,640 feet from the centerline of the navigation channel.

Coordinates of the four corners of the proposed ODMDS are as follows:

29° 23' 14" N, 91° 26' 35" W
29° 21' 38" N, 91° 24' 14" W
29° 09' 16" N, 91° 35' 12" W
29° 10' 52" N, 91° 37' 33" W

The center of the proposed site is approximately 19 miles from the mainland coast. The site has an average depth of approximately 25 feet and a total area of approximately 54 square miles.

Maintenance dredging of the Atchafalaya River bar channel is required on an annual basis and only dredged material from the navigation channel would be disposed into the proposed Section 404 disposal site and into the proposed ODMDS. Dredged material would be removed using hydraulic cutterhead pipeline dredges and/or hopper dredges. Cutterhead dredges would discharge dredge material into the proposed Section 404 disposal site and into the proposed ODMDS as a non-cohesive slurry through a floating pipeline. Hopper dredges would discharge dredged material by agitation and dredge and haul to the proposed ODMDS. The dredged material generally is comprised of silty-clay with traces of sand.

Dredges may be assigned to the bar channel anytime surveys indicate that shoaling has compromised the authorized navigation channel. When a dredge is working in the bar channel, disposal operations will occur 24 hours a day, 7 days a week until authorized channel dimensions are restored.

Dredged material would be placed into the proposed Section 404 disposal site unconfined and in a manner conducive to creation of islands for colonial nesting seabirds. The initial height of the dredged material disposal mounds would be no higher than +8.0 feet MLG. The optimum final subaerial grade area of the created islands would range from 5 to 25 acres depending on the particular assemblage of birds for which an island is created. The subaerial edges of the created islands would be at least 1000 feet apart. From 400,000 to 2,000,000 cubic yards of dredged material would be placed annually into the proposed Section 404 disposal site.

Dredged material would be discharged into the proposed ODMDS in a manner that would ensure that direct impacts of the disposal would be within the limits of the site. Dredged material from proposed advanced maintenance test sections and dredged material from routine maintenance of the bar channel would be discharged into the proposed ODMDS. Approximately 1,680,000 cubic yards of dredged material would be placed into the proposed ODMDS during construction of the advanced maintenance test sections, and from 9,000,000 to 12,000,000 cubic yards of dredged material would be discharged into the proposed ODMDS during future annual maintenance events.

It is anticipated that annual maintenance of the Atchafalaya River bar channel will continue in the future. Disposal of dredged material into the proposed Section 404 disposal site will

continue until the site is filled. Disposal of dredged material into the proposed ODMDS would be limited to five years unless monitoring indicates that placement of dredged material into the site is adversely impacting the environment or other uses of the ocean or the EPA designates the ODMDS for continuing use pursuant to Section 102 (c) of the MPRSA.

GUIDELINES APPLICABLE TO ALL USES

Guideline 1.1 – 1.10. The guidelines have been read in their entirety and all applicable guidelines would be complied with. The project would be in conformance with all applicable state water and air quality laws, regulations and standards. The state office of Coastal Zone Management was coordinated with to determine the effects of this project on the coastal zone. No cultural resource sites would be impacted. Sediment transport and temperature regime would not be changed in the overall project area. No threatened or endangered species, or their critical habitat, would be impacted nor would fish migratory patterns be affected by the overall project.

GUIDELINES FOR LEVEES

Guideline 2.1 - 2.6. The project would have minimal impacts on water movement, flow, circulation, or quality.

GUIDELINES FOR DREDGED SPOIL DEPOSITION

Guideline 4.1 - 4.7. The project would have minimal impacts on water movement, flow, circulation, or quality. Fishing, trapping, hunting, and other recreational activities would not be negatively affected. No submerged vegetation, oyster beds, or clam reefs would be affected. State owned property would not be alienated.

GUIDELINES FOR SURFACE ALTERATIONS

Guideline 6.1 – 6.14. The proposed work would have no effect on area land surfaces.

CONSISTENCY DETERMINATION

This project would have minimal impacts on aquatic resources in the vicinity and no impacts on the surrounding area. Based on this evaluation, the U. S. Army Corps of Engineers, New Orleans District, has determined that the proposed construction is consistent, to the maximum extent practicable, with the State of Louisiana's Coastal Zone Management Program.



DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT CORPS OF ENGINEERS

P.O. BOX 60267

NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

Planning, Programs, and Project Management Division
Environmental Planning and Compliance Branch

DRAFT

FINDING OF NO SIGNIFICANT IMPACT

ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF AND BLACK, LOUISIANA CONSTRUCTION OF ADVANCED MAINTENANCE TEST SECTIONS AND ADDITIONAL DISPOSAL AREAS IN ATCHAFALAYA RIVER BAR CHANNEL

EA #348

Description of Action. The U.S. Army Corps of Engineers (USACE), New Orleans District, proposes to construct advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act (CWA) of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel. The test sections would be approximately 2,000 feet apart and would be constructed to a depth of -28.0 feet Mean Low Gulf (MLG), i.e., 4 feet below the currently maintained depth of -24 feet MLG. Four 6,000-foot sections and one 5,000-foot section, all 375 feet in width would be excavated and material disposed in the proposed ODMDS on the west or right-descending bank of the Atchafalaya River bar channel. Approximately 350,000 cubic yards of material would be taken from the 6,000-foot sections and 280,000 cubic yards would be taken from the 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging.

Factors Considered in Determination. Based on an Environmental Assessment (EA #348), the USACE has determined that there would be no adverse impacts to physical elements, biological resources, and other activities/resources.

Public Involvement. The EA was coordinated with the Environmental Protection Agency, U.S. Fish and Wildlife Service, and Louisiana Department of Natural Resources, as well as other concerned governmental agencies and interested parties. These documents are on file at the U.S. Army Corps of Engineers, New Orleans District, and are available to the public upon request.

Conclusion. This office has assessed the environmental impacts of the proposed action and has determined that the action would have no significant impact upon the human environment. Therefore, no Supplemental Environmental Impact Statement will be prepared.

Date _____

DRAFT

Thomas F. Julich
Colonel, U.S. Army
District Engineer

EA

ENVIRONMENTAL ASSESSMENT

ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF AND BLACK, LOUISIANA CONSTRUCTION OF ADVANCED MAINTENANCE TEST SECTIONS AND ADDITIONAL DISPOSAL AREAS IN ATCHAFALAYA RIVER BAR CHANNEL

EA #348

INTRODUCTION

The U.S. Army Corps of Engineers (USACE), New Orleans District (DISTRICT), has prepared this Environmental Assessment (EA) to evaluate the potential impacts attributed to construction of advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act (CWA) of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel.

This EA has been prepared in accordance with the National Environmental Policy Act of 1969 and the Council on Environmental Quality's Regulations (40 CFR 1500-1508), as reflected in the USACE Engineering Regulation, ER 200-2-2; the Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA) (86 Stat. 1052), as amended; the Environmental Protection Agency (EPA) Ocean Dumping Regulations 40 CFR 220 to 229; and other applicable Federal environmental legislation. The following sections include a discussion of the purpose and need for the proposed action, the authorities for the proposed action, alternatives to the proposed action, significant resources affected by the proposed action, and the impacts of the proposed action. In addition, selection of the proposed ODMDS will be based on evaluation of the environmental consequences of site selection and use in accordance with the 5 general [40 CFR 228.5] and 11 specific criteria [40 CFR 228.6(a)] as required by the MPRSA.

NEED FOR ACTION

Historically, the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation channel has been dredged to a depth of 24 feet (20 feet deep with 2 feet advanced maintenance and 2 feet of allowable over depth). The existing Section 404 disposal site on the east or left-descending bank of the navigation channel has been used annually for placement of dredged material from maintenance of the Atchafalaya River bar channel since 1992. Only material suitable for stacking to construct islands for colonial nesting seabirds has been placed at the site. The quantity of dredged material placed into the site each year has ranged from 390,000 cubic yards to 2,998,774 cubic yards.

As an interim- and Section 102-designated ODMDS, the existing ODMDS on the east or left-descending bank of the navigation channel has been used annually, except for 1978, 1980, and 1982, for the placement of material dredged from the Atchafalaya River bar channel. The

quantity of dredged material discharged into the site each year has ranged from 1,000,000 cubic yards to 14,000,000 cubic yards.

Currently, the presence of fluid mud or "fluff" (terms used interchangeably herein) in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project has made it impossible to provide a reliable 20-foot Mean Low Gulf (MLG) channel through the bar. The "fluff" returns to the channel within weeks after maintenance dredging is complete and interferes with the passage of certain types of vessels.

The DISTRICT has committed to more frequent maintenance dredging in the bar channel to alleviate the "fluff" problems. The DISTRICT also has tasked the Engineering Research and Development Center (ERDC) to conduct studies to determine circulation patterns, sediment deposition, and appropriate disposal locations in the vicinity of the bar channel.

In response to a proposal from the ERDC, the DISTRICT proposes to construct five (5) advanced maintenance test sections in the bar channel in that portion of channel with the most rapid shoaling rate. The test sections would be constructed to a depth of -28.0 feet MLG, i.e., 4 feet below the currently maintained depth of -24 feet MLG. Construction of the proposed test sections and monitoring of shoaling rates in the sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time between maintenance events.

The DISTRICT also is proposing selection and designation of additional disposal sites on the west or right-descending bank of the bar channel in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being transported back into the navigation channel by prevailing littoral currents. The DISTRICT would select and use the proposed ODMDS under its Section 103 authority for five years and would designate and use the Section 404 site for the same period. The ERDC and the DISTRICT would analyze dredging records and surveys of the ODMDS and the navigation channel to test the hypothesis that placement of dredged material from maintenance of the bar channel on the west side of the channel will decrease the shoaling rate and the frequency of maintenance dredging. If monitoring indicates that placement of dredged material on the west side/right-descending bank of the bar channel decreases the frequency and need for maintenance of the bar channel, the DISTRICT would request that the Environmental Protection Agency (EPA) designate the proposed Section 103 site pursuant to Section 102 (c) for continuing use.

AUTHORITY FOR THE PROPOSED ACTION

Construction and maintenance of this 54-mile-long navigation channel was authorized by the Rivers and Harbors Act of 1968, House Document 155, 90th congress, 1st Session, which provides for the following plan of improvement:

- a) a channel 20 feet deep over a bottom width of 400 feet from the vicinity of the U.S. Highway 90 crossing over Bayou Bouef to the Gulf of Mexico via the Gulf Intracoastal Waterway (GIWW), Bayou Chene, the Avoca Island-Cutoff Bayou drainage channel, the Lower Atchafalaya River, and the existing project across Atchafalaya Bay to the 20-foot-

depth contour in the Gulf of Mexico. The channel width in Bayou Bouef is reduced to 300 feet where necessary because of industrial development on both sides of the bayou.

b) a 20-foot-deep by 400-foot-wide channel in Bayou Black and the GIWW from the major shipyard on Bayou Black at U.S. Highway 90 to Bayou Chene. Construction of the inland portions of Bayous Boeuf and Black was completed in June 1978. Construction of the Bayou Chene and Avoca Island-Cutoff reach was completed in September 1981. The navigation channel is maintained to project dimensions of -24 feet MLG (2 feet of advanced maintenance plus 2 feet of allowable over-depth) by 400 feet (Figure 1).

The authority for designation of ocean disposal sites is the MPRSA of 1972 (86 Stat. 1052), as amended (33 U.S.C.A. 1401 et seq.). Title I of the MPRSA, which is the Act's primary regulatory section, authorizes the Administrator of the EPA to establish permit programs for ocean disposal of non-dredged materials (Section 102) and the Secretary of the Army acting through the USACE to establish permit programs for ocean disposal of dredged materials (Section 103). Title I also requires the EPA to establish criteria, based on the factors listed in Section 102(a), for the review and evaluation of permits under the EPA and USACE permit programs. Section 102(c) of Title I authorizes the EPA, considering criteria established pursuant to Section 102(a), to designate recommended ocean disposal sites or times for dumping of non-dredged and dredged materials. Section 103(b) of Title I of the MPRSA, as amended by Section 501 of the Water Resources Development Act of 1992 (P.L. 102-580, October 31, 1992), authorizes the Secretary of the Army, with the concurrence of the Administrator of the EPA, to select an alternative ODMDS. The criteria and factors established in Section 102(a) relating to site selection are used in selecting the alternative site. Disposal of dredged material at the alternative site is limited to a period of 5 years unless the EPA pursuant to Section 102(c) subsequently designates the site. An ODMDS selected pursuant to Section 103(b) may continue for an additional 5 years if no other feasible disposal site has been designated by the EPA; the continued use of the alternative site is necessary to maintain navigation and facilitate interstate or international commerce; and the EPA determines that the continued use of the site does not pose an unacceptable risk to human health, aquatic resources, or the environment.

The Mississippi Valley Division (MVD), USACE, has approved the DISTRICT request to perform additional advanced maintenance in the Atchafalaya River bar channel on a trial basis. According to the memorandum from MVD dated January 18, 2002, the authority is for construction of the five advanced maintenance test sections to a depth of -28 feet MLG. The approval is not to be construed as a long-term or permanent condition for the additional advanced maintenance.

PUBLIC CONCERNS

The public is concerned about the loss of coastal wetlands and concerned about maintaining navigation in this area. The public would also like to see beneficial use of dredged material where feasible, and minimal concentrations of pollutants in sediments.

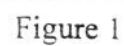


Figure 1

PRIOR REPORTS

The impacts of the initial channel work were described in the final Environment Impact Statement (EIS) entitled, "Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana," filed with Council on Environmental Quality on 15 January 1974. A final supplement to the final EIS, "Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana," was filed with the U.S. Environmental Protection Agency on 4 February 1977.

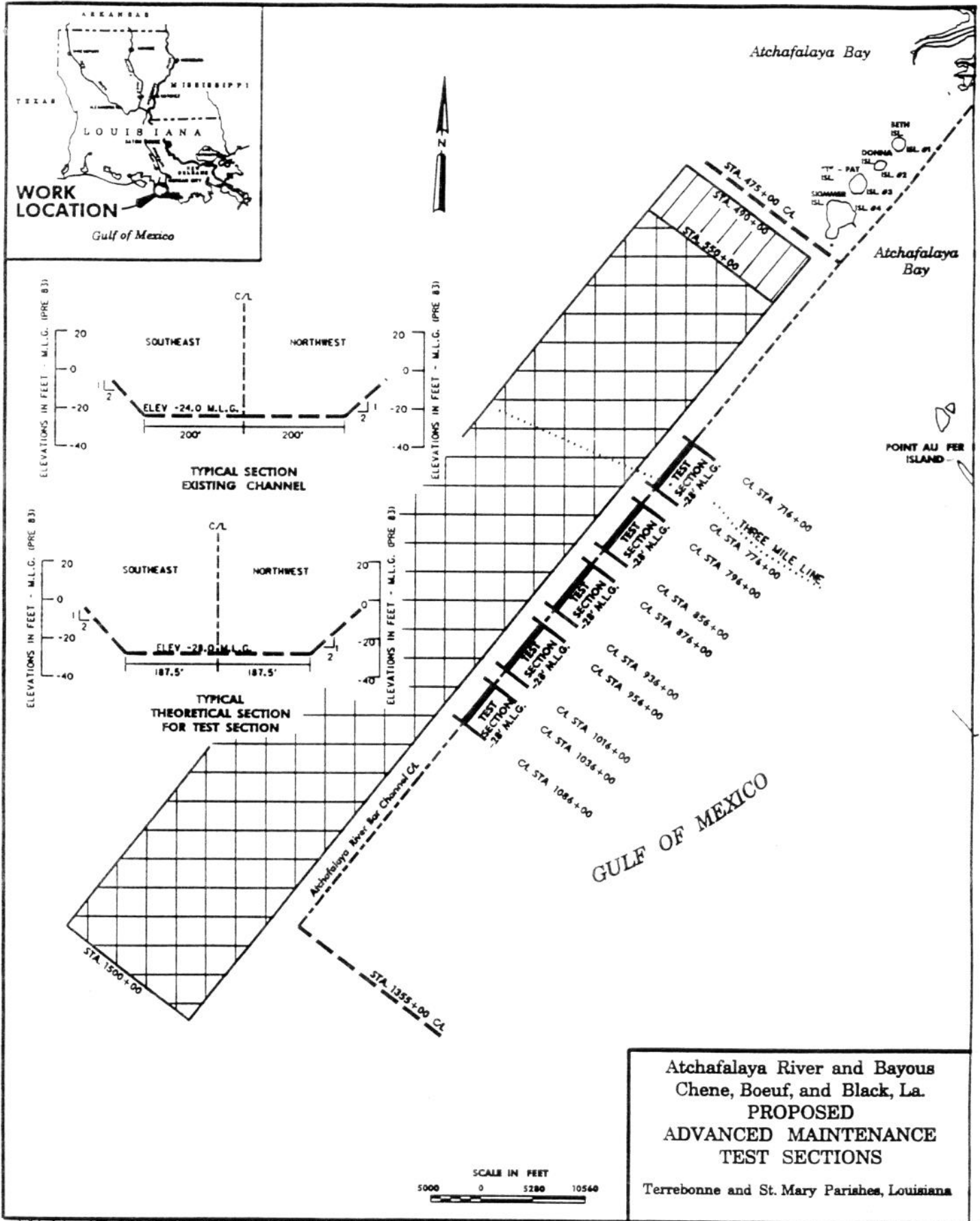
The EPA prepared a Draft Environmental Impact Statement (EIS) on the final designation of the Atchafalaya River Bar Channel ODMDS in November 1983. In December 1989, the EPA determined that a Supplemental Draft EIS was necessary to correct information deficiencies and to include more recent data. The EPA prepared a Supplemental Draft EIS, "Atchafalaya River Bar Channel Ocean Dredged Material Disposal Site Designation" in December 1990, and a Supplemental Final EIS in November 1998. An Environmental Assessment titled "Proposed Expansion and Selection of the Atchafalaya River Bar Channel Ocean Dredged Material Disposal Site" was prepared by DISTRICT and the resulting FONSI signed on February 4, 1997.

DESCRIPTION OF THE PROPOSED ACTION

In response to a recommendation from the ERDC, the DISTRICT proposes to construct five advanced maintenance test sections in that portion of the bar channel with the most rapid shoaling rate (between C/L Station 716+00 and C/L Station 1086+00) (Figure 2). The test sections would be approximately 2000 feet apart and would be constructed to a depth of -28.0 feet MLG, i.e., 4 feet below the currently maintained depth of -24 feet MLG. Four 6,000-foot sections and one 5,000-foot section, all 375 feet in width would be excavated and material disposed in the proposed ODMDS (Figure 2). Approximately 350,000 cubic yards of material would be taken from the 6,000-foot sections and 280,000 cubic yards would be taken from the 5,000-foot section for a total volume of 1,680,000 cubic yards or 19 percent of the mean annual Atchafalaya River bar channel dredging. Construction of the proposed test sections and monitoring of shoaling rates in the test sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time between maintenance events.

Advanced maintenance in longitudinal sections would avoid the undesirable effects on gravitational migration of sediment that would occur with an overall channel deepening. An overall channel deepening is more likely to increase the sediment trapping efficiency of the channel by increasing gravitational circulation. Sectional advanced maintenance deepening is reversible by natural sedimentation, and could be abandoned if proved to be ineffective.

The DISTRICT is also proposing selection and designation of additional disposal sites on the west or right-descending bank of the bar channel in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being moved back into the navigation channel by prevailing littoral currents. The DISTRICT would select and use the proposed ODMDS under its Section 103(b) authority for five years. The ERDC and the DISTRICT would monitor the placement of dredged material



from maintenance of the bar channel on the west side of the channel to see if it will decrease the shoaling rate and the frequency of maintenance dredging. If monitoring indicates that placement of dredged material on the west side or right-descending bank of the bar channel decreases the frequency and need for maintenance of the bar channel, the DISTRICT would request the EPA designate the proposed Section 103(b) site pursuant to Section 102 (c) for continuing use, and the DISTRICT would continue to use the proposed Section 404 disposal site.

The proposed Section 404 disposal site is rectangular-shaped, approximately 3.0 miles wide by 1.1 miles long, parallel to the Atchafalaya River bar channel and on the west side or right-descending bank. The site encompasses approximately 2,200 acres of shallow open water. The inner limit of the proposed Section 404 disposal site is approximately 2,640 feet from the centerline of the navigation channel (Figure 3).

Coordinates of the four corners of the proposed Section 404 disposal site are as follows:

29° 23' 14" N, 91° 26' 35" W
29° 21' 38" N, 91° 24' 14" W
29° 24' 02" N, 91° 25' 53" W
29° 22' 25" N, 91° 23' 32" W

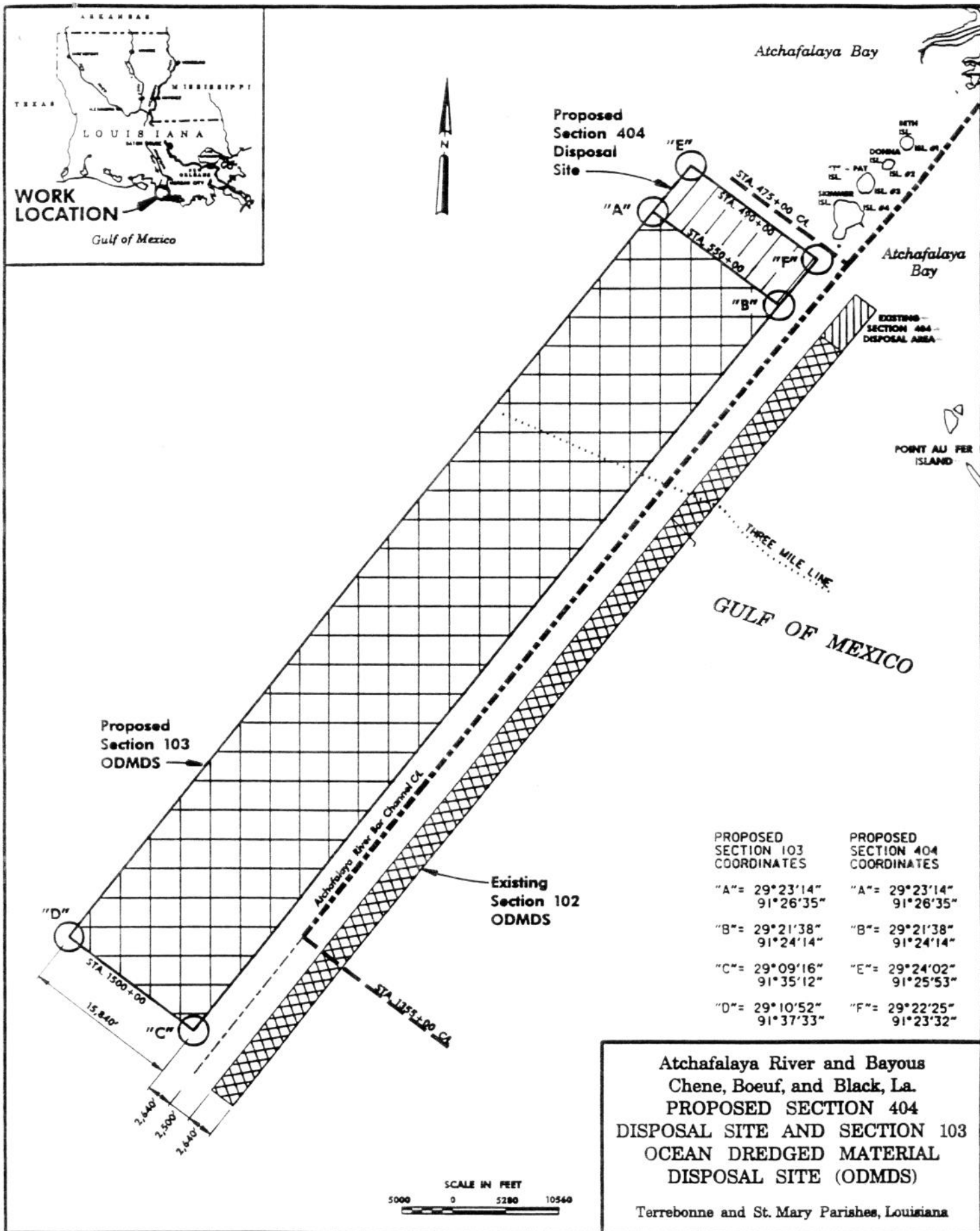
The proposed ODMDS is rectangular-shaped, approximately 3.0 miles wide by 18 miles long, parallel to the Atchafalaya River bar channel and on the west side or right-descending bank. The proposed site encompasses approximately 35,000 acres of open water. The inner limit of the proposed ODMDS is approximately 2,640 feet from the centerline of the navigation channel (Figure 2).

Coordinates of the four corners of the proposed ODMDS are as follows:

29° 23' 14" N, 91° 26' 35" W
29° 21' 38" N, 91° 24' 14" W
29° 09' 16" N, 91° 35' 12" W
29° 10' 52" N, 91° 37' 33" W

The center of the proposed site is approximately 19 miles from the mainland coast. The site has an average depth of approximately 25 feet and a total area of approximately 54 square miles.

Maintenance dredging of the Atchafalaya River bar channel is required on an annual basis and only dredged material from the navigation channel would be disposed into the proposed Section 404 disposal site and into the proposed ODMDS. Dredged material would be removed using hydraulic cutterhead pipeline dredges and/or hopper dredges. Cutterhead dredges would discharge dredge material into the proposed Section 404 disposal site and into the proposed ODMDS as a non-cohesive slurry through a floating pipeline. Hopper dredges would discharge dredged material by agitation and dredge and haul to the proposed ODMDS. The dredged material generally is comprised of silty-clay with traces of sand.



Dredges may be assigned to the bar channel anytime surveys indicate that shoaling has compromised the authorized navigation channel. When a dredge is working in the bar channel, disposal operations will occur 24 hours a day, 7 days a week until authorized channel dimensions are restored.

Dredged material would be placed into the proposed Section 404 disposal site unconfined and in a manner conducive to creation of islands for colonial nesting seabirds. The initial height of the dredged material disposal mounds would be no higher than +8.0 feet MLG. The optimum final subaerial grade area of the created islands would range from 5 to 25 acres depending on the particular assemblage of birds for which an island is created. The subaerial edges of the created islands would be at least 1000 feet apart. From 400,000 to 2,000,000 cubic yards of dredged material would be placed annually into the proposed Section 404 disposal site.

Dredged material would be discharged into the proposed ODMDS in a manner that would ensure that direct impacts of the disposal would be within the limits of the site. Dredged material from proposed advanced maintenance test sections and dredged material from routine maintenance of the bar channel would be discharged into the proposed ODMDS. Approximately 1,680,000 cubic yards of dredged material would be placed into the proposed ODMDS during construction of the advanced maintenance test sections, and from 9,000,000 to 12,000,000 cubic yards of dredged material would be discharged into the proposed ODMDS during future annual maintenance events.

It is anticipated that annual maintenance of the Atchafalaya River bar channel will continue in the future. Disposal of dredged material into the proposed Section 404 disposal site will continue until the site is filled. Disposal of dredged material into the proposed ODMDS would be limited to five years unless monitoring indicates that placement of dredged material into the site is adversely impacting the environment or other uses of the ocean or the EPA designates the ODMDS for continuing use pursuant to Section 102 (c) of the MPRSA.

ALTERNATIVES TO THE PROPOSED ACTION

The no-action alternative to the proposed action would be to continue placing dredged material from the Atchafalaya River into the ODMDS on the east side of the channel. Although local currents in the vicinity of the ODMDS are influenced by tides, loop current intrusions, and river flow, the direction and velocity of currents are predominately influenced by the wind (Phillips and James 1988). Early studies by Morgan et al. (1953), analysis of ERTS images of the Atchafalaya Bay by Wells et al. (1981), as well as visual inspection of recent infrared aerial photographs reveal that the turbidity plume of sediment-laden waters from the Atchafalaya River and Bay are transported in a westerly drift system.

ENVIRONMENTAL SETTING

Environmental characteristics potentially affected by ocean disposal are generally categorized as geological, chemical, and biological. Physical oceanography and meteorological processes usually have an influence on the fate and effects of released dredged material. The following is a description of the environmental setting and characteristics of the proposed project area.

SIGNIFICANT RESOURCES AND IMPACTS

The significant resources described in this section are those recognized by laws, executive orders, regulations, or other standards of national, state, or regional agencies and organizations. Significant resources described include physical resources, biological resources, and other relevant activities or resources.

A. PHYSICAL ELEMENTS

GEOLOGY

Existing Conditions

The Atchafalaya River and Atchafalaya Bay lie roughly in the middle of two physiographic regions: (1) the chenier plain and (2) the deltaic plain (Kolb and van Lopik 1958, Wells et al. 1981). Starting in about 1952, accelerated sedimentation in Atchafalaya Bay marked the beginning of subaqueous delta growth (Shlemon 1975). From that time to 1973, prodelta clays and silty clays aggraded the bay bottom seaward of both the Lower Atchafalaya River outlet and the Wax Lake outlet. Since that time, sands have been prograding over finer delta clays and silts, and areas of emergent vegetation have expanded rapidly in Atchafalaya Bay (Roberts and van Heerden 1982). At this rate, in a few years bay filling will be complete and the subaerial delta will be prograding onto the continental shelf (in the area of the proposed ODMDS). With mean circulation and subsequent sediment transport in an east to west direction, coastal progradation will occur in that direction (Roberts and van Heerden 1982).

The proposed ODMDS lies in 2 to 7 meters of water, extending from approximately the entrance to Atchafalaya Bay and sloping gently at about 0.01 degree to the southwest on the western side of the existing navigation channel. During the two Interstate Electronics Corporation (IEC) surveys (IEC 1983), surface sediments in the proposed ODMDS were predominately silt and clay. Dettmann and Tracey (1990), Flemer et al. (1994), and Trulli (1996) found that channel sediments were also predominately silts and clays at all stations sampled. Generally, the percentages of silts and clays varied along a depth gradient for both channel/disposal and reference stations. In the December 1980 and May-June 1981 IEC surveys (IEC 1983), combined silt and clay content ranged from 82 to 100%, and sand content ranged from 1 to 18%. The clay fraction was slightly lower in December than in May-June, possibly due to resuspension of fine sediments during winter frontal activity. Sediment types were generally the same inside and outside the proposed ODMDS.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

Continued disposal in the existing disposal sites on the east side of the bar channel will not significantly change subsurface conditions in Atchafalaya Bay. Discharge from the Atchafalaya River is contributing to the high rate of sedimentation in the bay and much of the onshore areas will become subaerial in the very near future.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

Disposal in the proposed ODMDS and proposed Section 404 disposal site will not significantly change subsurface conditions in Atchafalaya Bay. Discharge from the Atchafalaya River is contributing to the high rate of sedimentation in the bay and much of the onshore areas will become subaerial in the very near future.

CLIMATE

Existing Conditions

The subtropical climate of the northern Gulf of Mexico and adjacent coastal areas is influenced by four primary factors: (1) the North American continental land mass, (2) the Bermuda high-pressure cell, (3) subtropical latitudes, and (4) warm Gulf waters (EPA 1984). The average monthly pressure reaches a minimum of 1014-1016 millibars during the summer months and a maximum of 1021 millibars during the winter. The minimum average monthly pressure occurs during the summer when the equatorial trough shifts northward; however, the maximum pressure occurs during the winter as a result of the presence and influence of continental cold air (MMS 1988). Coastal Louisiana has an annual mean air temperature of 23°C. July and August are the warmest months, with a mean temperature of 29°C; January is the coldest month, with a mean temperature of 17°C.

Dinnel and Wiseman (1986) estimate the annual precipitation rate at 95 cm/year (37 in/year) for the west Louisiana/Texas shelf. The greatest amount of rainfall with any single event is associated with tropical storms in August, September, and October (Brower et al. 1972).

Summer weather is dominated by a southerly flow of air. In winter, winds, influenced by frontal activity, generally dominate from easterly directions with less of a southern and more of a northern component. Maximum wind speed is generally 10 meters/second (m/s); however, winds could reach 26 m/s (MMS 1983). The highest wind speeds, up to 90 m/s, have been measured during the passage of hurricanes and other tropical systems (Weissberg et al. 1980b).

Hurricanes and tropical storms typically enter the Gulf of Mexico from the southeast and turn to a northerly direction as the systems approach the Louisiana coast (Crutcher and Qualye 1974). Tropical storms occur most frequently between June and October, with peak frequency in the Louisiana coastal and offshore region in September. Weissberg et al. (1980b) estimate that a hurricane affects the Louisiana coastline about once every 4 years.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

The proposed work in the Atchafalaya bar channel and subsequent dredged material disposal is not expected to result in any changes to short-term or long-term meteorological conditions.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

The proposed work in the Atchafalaya bar channel and subsequent dredged material disposal is not expected to result in any changes to short-term or long-term meteorological conditions.

AIR QUALITY

Existing Conditions

This resource is considered institutionally significant because of the Louisiana Environmental Quality Act of 1983, as amended, and the Clean Air Act of 1963, as amended. Air Quality is technically significant because of the status of regional ambient air quality in relation to the National Ambient Air Quality Standards (NAAQS). It is publicly significant because of the desire for clean air expressed by virtually all citizens. St. Mary Parish is currently classified in attainment of all NAAQS and is under a limited maintenance plan. This classification is the result of area-wide air quality modeling studies.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

Continued use of the existing ODMDS and Section 404 disposal site would not exceed the general conformity applicability threshold under the limited maintenance plan for St. Mary Parish, which is 100 tons/year Volatile Organic Compounds.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

Implementation of the proposed ODMDS and the proposed Section 404 site would not exceed the general conformity applicability threshold under the limited maintenance plan for St. Mary Parish, which is 100 tons/year Volatile Organic Compounds.

PHYSICAL AND CHEMICAL OCEANOGRAPHY

Existing Conditions

The factors with the most influence on the flow-driving mechanisms in the location of the proposed disposal sites are wind, river flow and tidal currents, largely due to the nearshore location. Peak discharge of the Atchafalaya River, a major tributary of the Mississippi River, occurs in May (10,522 m³/s) and lowest discharge occurs in September (2,500 m³/s). Along the central Gulf coast, tide ranges are small, typically less than 0.5 m (Denes and Caffrey 1988), and therefore tides have a small influence on flow. Net flow in the area of the proposed ODMDS is to the northwest most of the year (Weissberg et al. 1980a,b; Wells et al 1981). Coastal winds are from the southeast at the beginning of the flood season, but as spring progresses, the winds are more from the west and become favorable for upwelling, and the local flow reverses and turns toward the north and east.

Waves in the northern Gulf of Mexico are a combination of wind-generated waves and swell from the open Gulf. Wave direction generally follows wind direction and its seasonal patterns.

Wind and wave direction are similar during 80% of the year (Wiseman et al. 1975, cited in Wells et al. 1981). Current speeds generally range from 10 to 30 cm/s at the proposed disposal sites (Wells and Kemp 1982). Minimum speeds of 5 to 30 cm/s occur during June, July, and August, whereas the highest recorded current speeds in the vicinity of the proposed disposal sites range from 70 to 140 cm/s and occur during strong winter storms (Weissberg et al. 1980a,b). Current speeds of up to 200 cm/s may occur during hurricanes off Atchafalaya Bay.

The proximity of the proposed ODMDS to the Atchafalaya River outlet is a factor on the water chemistry in the area. Water chemistry conditions in this area are dependent on the quantity and quality of water discharged from the Atchafalaya River. In addition, it is likely that dredged material may be moving back into the channel from the eastern disposal sites.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

Continued disposal in the eastern ODMDS and the Section 404 disposal site will not significantly change physical and chemical conditions in Atchafalaya Bay. Discharge from the Atchafalaya River is a large contribution to the physical and chemical nature in this part of the northern Gulf of Mexico. The high rate of sedimentation in the bay and much of the nearshore areas will eventually become subaerial in the very near future. Disposal of dredged material into the eastern disposal sites may continue to result in material being transported back into the navigation channel.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

Disposal in the western ODMDS and the proposed Section 404 disposal site will not significantly change physical and chemical conditions in Atchafalaya Bay. Discharge from the Atchafalaya River is a large contribution to the physical and chemical nature in this part of the northern Gulf of Mexico. The high rate of sedimentation in the bay and much of the nearshore areas will eventually become subaerial in the very near future.

WATER QUALITY

Existing Conditions

This resource is institutionally significant because of the Clean Water Act of 1977, as amended. Water quality is publicly significant because of the desire of the public for clean drinking water in addition to the secondary amenities of recreational fishing and boating. The proximity of the Atchafalaya River to the proposed disposal sites has a direct effect on the quantity and quality of water that may be found in the proposed location.

Salinities in the area can vary over distance from the Atchafalaya River discharge, bottom depth, and by season. Nearshore areas approach freshwater conditions and salinities near the offshore disposal areas are approximately 25 parts per thousand (ppt) (Flemer et al. 1994). Flemer et al. (1994) noted pH values ranging from a high of 8.8 nearshore to 7.4 at an offshore location.

Dissolved oxygen concentrations generally range from 6 to 7.5 milligram/Liter (mg/L) (Flemer et al. 1994). These findings exceed the generally accepted <2 mg/L operational definition of hypoxic waters. Oxygen depletion is a seasonally dominant feature off the continental shelf of Louisiana, adjacent to the deltas of the Mississippi and Atchafalaya Rivers (Rabalais et al. 1991, 1992, 1994, 1995).

The discharge of the Atchafalaya River has a significant impact on the concentration of specific nutrients in the coastal zone. Caffrey and Day (1986) investigated variations in nutrient concentrations in Fourleague Bay and Atchafalaya Bay during high spring discharge of the Atchafalaya River and frontal passage. The results illustrate how the physical factors of tides, winds, and river discharge interact to control nutrient concentrations. Atchafalaya River discharge produced high suspended solids, nitrate, total phosphorus and total Kjeldahl nitrogen concentrations.

Turbidity in this part of coastal Louisiana is influenced by resuspension of sediments and runoff from the Atchafalaya River (Walker 2000). Discharge plumes from the Atchafalaya River have been detected as far as 29 km offshore (Walker 2000). Within Atchafalaya Bay, suspended sediment concentrations range from 250 to 400 mg/L, but increase to more than 800 mg/L seaward of the Point au Fer shell reef. The increase in concentration result from wave resuspension of soft sediments deposited rapidly as prodelta clays or during calm weather periods. The concentrations of suspended sediments in the turbid zone decrease across the shelf to the plume edge approximately 25 to 28 km offshore. Outside the plume, typical shelf suspended sediment concentrations are 1 mg/L or less.

Distributions and concentrations of trace metals in the Gulf of Mexico are variable and probably related to land runoff, biological activity, man-made inputs and physical processes (Frey et al 1981, Trefry 1981, Phillips and James 1988). The major source of dissolved and particulate trace metals to the Gulf is discharge from the Mississippi and Atchafalaya Rivers. Trace metal concentrations in waters from the Atchafalaya River Bar Channel and comparable reference stations were below detection limits (Dettmann and Tracey 1990, Trulli 1996). Also below detection limits were samples for organic volatiles and semivolatiles, pesticides, and PCBs (Dettmann and Tracey 1990, Trulli 1996).

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

Water quality conditions should largely remain unchanged with continued use of the current disposal sites. Turbidity may become elevated at disposal locations during dredging. If the proper conditions exist, oxygen depleted bottom water could occur in the area of the ODMDS, however, these conditions are more likely to occur offshore from the ODMDS.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

Water quality conditions should largely remain unchanged with use of the proposed disposal sites. Turbidity may become elevated at disposal locations during dredging. If the proper

conditions exist, oxygen depleted bottom water could occur in the area of the proposed ODMDS, however, these conditions are more likely to occur offshore from the proposed ODMDS.

B. BIOLOGICAL RESOURCES

COASTAL ENVIRONMENTS

Existing Conditions

This resource is institutionally significant because of: Clean Water Act of 1977, as amended; Executive Order 11990 of 1977, Protection of Wetlands; Coastal Zone Management Act of 1972, as amended; and the Estuary Protection Act of 1968. Wetlands are technically significant because: they provide necessary habitat for various species of plants, fish, and wildlife; they serve as ground water recharge areas; they provide storage areas for storm and flood waters; they serve as natural water filtration areas; they provide protection from wave action, erosion, and storm damage; and they provide various consumptive and nonconsumptive recreational opportunities. Wetlands are publicly significant because of the high value the public places on the functions and values that wetlands provide.

The marshes north of the project area are mostly fresh to intermediate salinity marshes that are experiencing significant progradation and are extremely productive. Salinities in the marshes vary from 0 to 5 ppt. Marsh vegetation consists primarily of freshwater and intermediate salinity vegetation (Chabreck and Linscombe 1978).

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

Placement of dredged material in shallow open water areas would not prevent or decelerate erosion of marshes in the project area. Some localized slowing of erosion rates would probably occur as material is resuspended and delivered back onshore the Chenier Plain due to prevailing currents.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

Placement of dredged material in shallow open water areas would not prevent or decelerate erosion of all marshes in the project area. Some localized slowing of erosion rates would probably occur as material is resuspended and delivered back onshore due to prevailing currents.

OFFSHORE RESOURCES/ENVIRONMENTS

Existing Conditions

This resource is institutionally significant because of: Clean Water Act of 1977, as amended; Coastal Zone Management Act of 1972, as amended; and the Estuary Protection Act of 1968. Offshore environments are technically significant because they provide necessary habitat for

various species of fish and wildlife, they provide various consumptive and nonconsumptive recreational opportunities.

No marine sanctuaries occur within the immediate vicinity of the proposed disposal sites. The Point au Fer Shell Reef is located just north of the proposed ODMDS, but is largely buried with sediment from the Atchafalaya River. The Atchafalaya Delta Wildlife Management Area is located approximately 16 km north of the proposed ODMDS. Fishnet Bank, the closest protected area of Biological Significance, is approximately 160 km south of the proposed disposal sites.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

Placement of dredged material in offshore open water areas would not affect any sensitive or non-sensitive offshore resources or environments in the project area. The Point au Fer Shell Reef has been largely buried due to sediment deposition from the Atchafalaya River. Additional sedimentation is likely to occur as material is resuspended and delivered back onshore due to prevailing currents.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

Placement of dredged material in offshore open water areas would not affect any sensitive offshore resources or environments in the project area. The Point au Fer Shell Reef has been largely buried due to sediment deposition from the Atchafalaya River. Additional sedimentation is likely to occur as material is resuspended and delivered back onshore due to prevailing currents.

COASTAL AND MARINE MAMMALS

Existing Conditions

This resource is institutionally significant because of the Endangered Species Act of 1973, as amended. Endangered (E) or threatened (T) species are technically significant because the status of such species provides an indication of the overall health of an ecosystem. These species are publicly significant because of the desire of the public to protect them and their habitats.

Endangered species that might be found in the immediate project area include the sperm, blue, sei, fin, right, and humpback whales, and the West Indian manatee. All are uncommon, and only the sperm, fin, and sei whales have been seen in the Central Gulf of Mexico in recent years.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

The proposed dredging and placement of dredged material would not be considered likely to adversely impact any coastal and marine mammals. The proposed project should not jeopardize any threatened or endangered species population or critical habitat.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

The proposed dredging and placement would not be considered likely to adversely impact any coastal and marine mammals. The proposed project should not jeopardize any threatened or endangered species population or critical habitat.

MARINE TURTLES

Existing Conditions

This resource is institutionally significant because of the Endangered Species Act of 1973, as amended. Endangered (E) or threatened (T) species are technically significant because the status of such species provides an indication of the overall health of an ecosystem. These species are publicly significant because of the desire of the public to protect them and their habitats.

Endangered species that might be found in the immediate project area include the Kemp's ridley sea turtle and the loggerhead sea turtle. Many of the sea turtles stranded on Louisiana beaches are Kemp's ridley. There is an occasional report of a stranding or sighting of a loggerhead turtle. High levels of sediment in the water column and low prey availability probably preclude any high use of sea turtles in the lower Atchafalaya River (Baird 1997).

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

The proposed dredging and placement would not be considered likely to adversely impact any threatened or endangered species. Sea turtle prey availability in the project area could be reduced temporarily because of turbidity. The proposed project should not jeopardize any marine turtles population or critical habitat.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

The proposed dredging and placement would not be considered likely to adversely impact any threatened or endangered species. Sea turtle prey availability in the project area could be reduced temporarily because of turbidity. The proposed project should not jeopardize any marine turtles population or critical habitat.

COASTAL AND MARINE BIRDS

Existing Conditions

This resource is institutionally significant because of the Endangered Species Act of 1973, as amended. Endangered or threatened species are technically significant because the status of such species provides an indication of the overall health of an ecosystem. These species are publicly significant because of the desire of the public to protect them and their habitats. Endangered species that might be found in the immediate project area include the Piping Plover and the Brown Pelican. These two species are frequently observed in coastal Louisiana.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

The proposed dredging and placement would not be considered likely to adversely impact any threatened or endangered species. The proposed project should not jeopardize any threatened or endangered species population or critical habitat. Over time, placement of dredge material may create intertidal habitats that will be utilized by Piping Plover and Brown Pelican.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

The proposed dredging and placement would not be considered likely to adversely impact any threatened or endangered species. The proposed project should not jeopardize any threatened or endangered species population or critical habitat. Over time, placement of dredge material may create intertidal habitats that will be utilized by Piping Plover and Brown Pelican.

FISH RESOURCES

Existing Conditions

This resource is institutionally significant because of the Fish and Wildlife Coordination Act of 1958, as amended and the Magnuson-Stevens Fishery Conservation and Management Act of 1996. Fish resources are technically significant because: they are a critical element of many valuable aquatic habitats; they are an indicator of the health of various aquatic habitats; and many species are important commercial resources. Fish are publicly significant because of the high priority that the public places on their esthetic, recreational, and commercial value. Endangered or threatened species are technically significant because the status of such species provides an indication of the overall health of an ecosystem. These species are publicly significant because of the desire of the public to protect them and their habitats.

The Magnuson-Stevens Fishery Conservation and Management Act of 1996 defines Essential Fish Habitat (EFH) as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.” The estuarine and marine waters in St. Mary Parish, as well as the northern Gulf of Mexico, are designated as EFH. In particular, EFH identified in St. Mary Parish and adjoining waters by the Gulf of Mexico Fishery Management Plan (FMP) include estuarine water column; and mud, rock, sand, intertidal vegetation, and shell substrates. No Habitat Areas of Particular Concern have been identified in the vicinity. The proposed project is located in an area identified as Essential Fish Habitat (EFH) for post-larval and juvenile brown shrimp, white shrimp, and red drum.

Gulf sturgeon is a threatened species whose range includes the Atchafalaya area of the Gulf of Mexico. However, due to the high levels of sediments entering the Gulf from the lower Atchafalaya River, the presence of gulf sturgeon in the proposed disposal sites is unlikely.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

Temporary increases in the turbidity levels of the waters directly adjacent to the proposed project site are not expected to significantly affect fish resources. Temporary placement of the dredged material pipeline in open water areas is not expected to significantly affect fish resources. Creation of subtidal and intertidal habitats would benefit the fishery by adding nutrients and detritus to the existing food web and contribute to the overall productivity of the area.

The proposed dredging and placement would not be considered likely to adversely impact any threatened or endangered species. The proposed project should not jeopardize any threatened or endangered species population or critical habitat.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

Temporary increases in the turbidity levels of the waters directly adjacent to the proposed project site are not expected to significantly affect essential fish habitat needs. Temporary placement of the dredged material pipeline in open water areas is not expected to significantly affect essential fish habitat. Creation of subtidal and intertidal habitats would benefit the fishery by adding nutrients and detritus to the existing food web and contribute to the overall productivity of the area.

The proposed dredging and placement would not be considered likely to adversely impact any threatened or endangered species. The proposed project should not jeopardize any threatened or endangered species population or critical habitat.

ESSENTIAL FISH HABITAT

Existing Conditions

This resource is institutionally significant because of the Magnuson-Stevens Fishery Conservation and Management Act of 1996. Essential fish habitat is technically significant because: it is a critical element of many valuable aquatic habitats; it is an indicator of the health of various aquatic habitats; and many species are important commercial resources. Essential fish habitat is publicly significant because of the high priority that the public places on the esthetic, recreational, and commercial value of various fishery resources.

The Magnuson-Stevens Fishery Conservation and Management Act of 1996 defines Essential Fish Habitat (EFH) as "those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity." The estuarine and marine waters in St. Mary Parish, as well as the northern Gulf of Mexico, are designated as EFH. In particular, EFH identified in St. Mary Parish and adjoining waters by the Gulf of Mexico Fishery Management Plan (FMP) include estuarine water column; and mud, rock, sand, intertidal vegetation, and shell substrates. No Habitat Areas of Particular Concern have been identified in the vicinity. The proposed project is located in an area identified as Essential Fish Habitat (EFH) for adult, post-larval and juvenile brown shrimp, adult, post-larval and juvenile white shrimp, and adult red drum.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

Temporary increases in the turbidity levels of the waters directly adjacent to the proposed project site are not expected to significantly affect essential fish habitat needs. Temporary placement of the dredged material pipeline in open water areas is not expected to significantly affect essential fish habitat. Creation of subtidal and intertidal habitats would benefit the fishery by adding nutrients and detritus to the existing food web and contribute to the overall productivity of the area.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

Temporary increases in the turbidity levels of the waters directly adjacent to the proposed project site are not expected to significantly affect essential fish habitat needs. Temporary placement of the dredged material pipeline in open water areas is not expected to significantly affect essential fish habitat. Creation of subtidal and intertidal habitats would benefit the fishery by adding nutrients and detritus to the existing food web and contribute to the overall productivity of the area.

C. OTHER ACTIVITIES/RESOURCES

OIL AND GAS

Existing Conditions

The Gulf of Mexico oil and gas industry has experienced dramatic changes over recent years. International as well as domestic policy ramifications appear to shape the immediate trends in exploration, rig utilization and leased acreage. Until the price of oil and gas stabilizes, the current situation is an offshore sector that has a significant capacity in idle equipment and low levels of drilling activity.

Extensive oil and gas development occurs within the Atchafalaya River Delta and the proposed disposal areas. At one time, within three block areas off Atchafalaya Bay (South Marsh Island, Eugene Island, Ship Shoal), 27% of Louisiana's oil and gas fields occurred (Offshore 1982). Several gas lines cross the proposed ODMDS, including a 50.8 cm United Gas line, a 55.9 cm Trunkline Gas line, and 25.4 cm, 50.8, and 76.2 Michigan Wisconsin Gas lines. Several smaller gathering lines connecting wells and platforms also exist near the proposed disposal sites.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

Currently, there are 6 pipeline structures located within the current disposal sites. Disposal in the current ODMDS will not directly affect any of these structures. In the future, access to these structures may become limited due to shallow depths.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

Currently, there are several structures located within the proposed ODMDS, but the large size of the disposal site will accommodate disposal operations without affecting any nearby structures.

SOCIOECONOMIC

Existing Conditions

Oil and gas development and the associated industries that service this business are the major economic player for this part of Louisiana. Another industry is the fishing fleet that operates out of the ports of Morgan City and Dulac. Both of these industries depend on reliable navigational channels to develop or harvest offshore resources and either transport these goods back to onshore ports or, in the case of the oil and gas industry, to service the facilities that operate offshore.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

Continued use of the current disposal sites location will not impact any significant socioeconomic resources.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

Continued use of the proposed disposal sites location will not impact any significant socioeconomic resources.

COMMERCIAL FISHERIES

Existing Conditions

This resource is institutionally significant because of the Fish and Wildlife Coordination Act of 1958, as amended and the Magnuson-Stevens Fishery Conservation and Management Act of 1996. Fish resources are technically significant because: they are a critical element of many valuable aquatic habitats; they are an indicator of the health of various aquatic habitats; and many species are important commercial resources. Fish are publicly significant because of the high priority that the public places on their esthetic, recreational, and commercial value.

The Magnuson-Stevens Fishery Conservation and Management Act of 1996 defines Essential Fish Habitat (EFH) as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.” The estuarine and marine waters in St. Mary Parish, as well as the northern Gulf of Mexico, are designated as EFH. In particular, EFH identified in St. Mary Parish and adjoining waters by the Gulf of Mexico Fishery Management Plan (FMP) include estuarine water column; and mud, rock, sand, and shell substrates. Species managed under that plan that occur in St. Mary Parish or adjoining waters include brown shrimp, white shrimp, red

drum, and Spanish mackerel. No Habitat Areas of Particular Concern have been identified in the vicinity.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

Temporary increases in the turbidity levels of the waters directly adjacent to the proposed project site are not expected to significantly affect essential fish habitat needs. Temporary placement of the dredged material pipeline in open water areas is not expected to significantly affect essential fish habitat. Creation of subtidal and intertidal habitats would benefit the fishery by adding nutrients and detritus to the existing food web and contribute to the overall productivity of the area.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

Temporary increases in the turbidity levels of the waters directly adjacent to the proposed project site are not expected to significantly affect essential fish habitat needs. Temporary placement of the dredged material pipeline in open water areas is not expected to significantly affect essential fish habitat. Creation of subtidal and intertidal habitats would benefit the fishery by adding nutrients and detritus to the existing food web and contribute to the overall productivity of the area.

RECREATIONAL

Existing Conditions

This resource is institutionally significant because of the Federal Water Project Recreation Act of 1965, as amended, and the Land and Water Conservation Fund Act of 1965, as amended. Recreational resources are technically significant because of the high economic value of recreational activities and their contribution to local, state and national economies. Recreational resources are publicly significant because of: the high value that the public places on fishing, hunting, and boating, as measured by the large number of fishing and hunting licenses sold in Louisiana; and the large per-capita number of recreational boat registrations in Louisiana.

Recreational activities that are popular in the vicinity of the project area include boating for pleasure, fishing, crabbing, shrimping, and passive recreational activities, such as observation of wildlife and nature study.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

The recreational environment in and around the project site would experience limited short-term disruption imposed by the physical size and working activities imposed by the floating dredge facility and associated dredge pipeline. Dredging activities would increase turbidity in the area where work is being performed and in the vicinity of the discharge pipes. This turbidity would

disrupt most recreational activity occurring within the area of work; however, these adverse impacts would be temporary and short lived.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

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CULTURAL

Existing Conditions

The coastal area of Louisiana has been an important navigation route since prehistoric times. Prehistoric vessels were used in Gulf waters to exploit marine resources. Evidence of this has been uncovered at several archeological sites in the state. In the colonial period, waterborne commerce was associated with French and Spanish trade and transportation routes. Later during the American Period water transportation was related to plantations established along various bayous emptying into the Gulf of Mexico. At present, there are 42 recorded shipwrecks in the coastal waters of Louisiana and numerous other wrecks reported for the rivers and bayous. At least 59 historic shipwrecks are recorded in the COE submerged cultural resources database for the Atchafalaya River.

A brief navigational history of the coastal water of the Gulf of Mexico and an inventory of known shipwrecks in the study area is provided in the report entitled A History of Waterborne Commerce And Transportation Within the U.S. Army Corps of Engineers, New Orleans District and an Inventory of Known Underwater Cultural Resources prepared by Coastal Environments, Inc. This study documents fifty-two shipwrecks in the Atchafalaya River and 7 in the Bay.

The Atchafalaya River received its name form the Choctaw words "hacha" meaning river and falaia meaning "long". It is pronounced Chaff-a-li-a. The Atchafalaya River represents the largest north-south waterway between Bayou Teche to the west and to Mississippi River to the east. The river runs approximately 145 miles from the Mississippi River to the Gulf. During historic times the upper end of the Atchafalaya River was connected to both the Mississippi River and to the Red River. In the French Spanish colonial period into the early nineteenth century American period the Atchafalaya River was constantly blocked by log jams, which impeded transportation. First effort to remove the logjams began in 1839 and by 1861 the channel was cleared. Although there had been no change in size of the channel until the removal of the log jam, the immediate result of raft clearance was river enlargement as every year the Mississippi River poured more water down the Atchafalaya River. As a result of more water in the river flooding in the Basin became a problem.

The Atchafalaya River and other channels in the Atchafalaya Basin were important transportation routes between the Bayou Teche region and the Mississippi River area throughout

the mid to late 1800's. It was not until the 1930's that this navigation route was altered by the construction of the east and west guide levees and the Old River control structure.

The lower Atchafalaya River from Berwick Bay to the Gulf was surveyed in 1888. The existing "Morgan's Cut" in Atchafalaya Bay was 9 ft. deep and 120 ft. wide. At this time numerous ships traveled the area including two Morgan Line Steam-ships, 25 schooners, and 30 luggers and sloops passing in and out an unknown number of times. In order to avoid dangerous boat travel through the open Gulf, boats meandered through an elaborate system of interconnecting streams between the Mississippi River and Bayou Teche. The products of the Atchafalaya country were cotton, sugar, molasses, moss, lumber, staves and shingles. Cypress lumbering, fishing and hunting was also a major economic pursuit.

In the 1880's, a railroad from Bayou Teche to New Orleans was built which ran approximately 125 miles. By 1885 the Morgan Railroad accounted for 90% of the commerce between the Teche region and New Orleans reducing the need for transportation by boat. It was not until the Gulf Intercostal Waterway opened that shipping by boat became a viable alternative to the railroad.

The literature research for the Atchafalaya River indicates a high probability for historic shipwrecks since it was along a historic shipping route. Due to the proximity of the proposed disposal site to the Atchafalaya River channel the cultural resource that has the greatest potential for impact by use of the ODMDS would be to shipwrecks. Numerous historic shipwrecks are recorded in the COE computerized submerged cultural resources database for this area. This database contains 52-recorded shipwrecks for the Atchafalaya River and 7 for the Atchafalaya Bay. Information on these shipwrecks was obtained from various historic documents and cartographic data. These shipwrecks range in age from the wreck of the *Anna* in 1852 all the way to the present. Shipwreck sites are usually the best type of sites to contain good preservation contexts. Wrecks in similar settings include major structural elements, such as keels, frames, cargo holes, and associated cargo. Discovery of these features and artifacts will provide significant information on trade and the historic development of the Atchafalaya River region.

The historic record represents an incomplete biased sample of the archaeological database. Not all shipwrecks were recorded in documents. For example the COE computerized shipwreck database indicated only 9 recorded shipwrecks in the historical literature for the Tchefuncte River, but when a limited survey was conducted of a portion of the Tchefuncte over 30 new wrecks were recorded.

The assessment of probability for significant underwater resources is determined by utilizing several data sets. These include (1) the number of known boat wrecks in a waterway as determined by the historical record, (2) the known intensity of vessel use and waterborne commerce on a waterway as documented in the historical literature, (3) and the known natural and human impacts on shipwrecks along individual waterways. By utilizing these criteria, a range of probability zones can be assigned to various waterways and research can be designed to fit the needs of a particular area.

The majority of shipwrecks in the Atchafalaya River occurred during certain times of the year suggesting that shipwrecks are a product of natural forces, which operate on a vessel. According

to the historic records, most of the wrecks that occurred in this area happened in late fall/winter and early spring storm season. This historic research also indicates that many vessels were typically damaged while approaching the mouth of river ports and landings along beaches. When vessels are damaged or lose power near the shoreline they are trapped by near shore ocean currents and pushed by predominantly onshore winds of the late fall/winter storm period into the coast and towards the beaches. Areas containing reefs, shoals such as the remnant Point au Fer shell reef are also high probability areas for shipwrecks.

Maintenance dredging in the Atchafalaya River and disposal in the newly proposed ODMDS area involves the removal of shoal material from the existing navigation channel and placing this material in a new disposal on the west side of the channel across from the previously designated and utilized east ODMDS area. This EA also proposes to dredge the channel to 35 feet in certain sections of the channel at mile as a test project. In the past a submerged cultural resources survey was not conducted of this waterway since it was believed that the proposed dredging would not extend either deeper, or wider than the area previously dredged. The dredging of this channel has gone on for many years.

Engineering projects conducted prior to implementation of historic preservation laws and regulation often did not fully examine historic submerged resources. The short and long term impacts of placing dredged material on top of submerged cultural resources have never been fully assessed. It was assumed that once material has been deposited in an area that the damage had already been done. This is not necessarily true. These waterways are dynamic, hence the need for maintenance dredging and for continual disposal in the same areas. In fact, the act of dredging increases the rate of shifting materials on the bottom. Adverse impacts to submerged cultural resources can result from disposal of dredged material on top of any significant cultural resources in the ODMDS area. Adverse impacts include: 1) increase weight of sediments on any significant shipwreck, and 2) localized burial of possible shipwrecks changing their environment and possibly increasing the rate of decay. While temporary mounding of dredged material may occur within the disposal areas, these mounds disperse fairly quickly. The disposed sediments are reworked by waves and littoral currents and are moved out of the ODMDS. The direction and speed of currents are variable, but sediments generally drift toward the west under most circumstances.

Section 106 of the National Historic Preservation Act states that all Federal agencies with jurisdiction over a Federal, federally assisted, or federally permitted undertaking must take into account the effects of the agency's undertakings on properties included in or eligible for the National Register of Historic Places. To comply with National Historic Preservation Act, a submerged cultural resources survey of this ODMDS was conducted in 1996. This survey was conducted to determine the presence of submerged cultural resources in the ODMDS area. Since a submerged cultural resources survey had never been conducted in the project area, no information could be provided regarding the number and types, and significance of any shipwrecks. This survey was conducted to "insure that potential effects to submerged historic properties were adequately considered in O&M dredging and disposal activities.

The 1996 submerged cultural resources survey (remote sensing survey) of the previously designated ODMDS was designed to locate submerged cultural resources, which could have been impacted by disposal of dredged material. In addition to reviewing the cultural background

of the project area, geological and sedimentological studies were examined to develop a concise summary of the physical environment of the project area. This investigation specifically examined issues relating to wreck dispersion and preservation as well as channel changes.

Research in archival and secondary sources provided good indications of the potential for historic shipwrecks in the project area, as well as the historic contexts within which these resources may be understood. Geological and geomorphological data also was compiled, providing information on site formation processes, as well as the potential for shipwreck preservation. Prior to commencing the remote sensing survey, a reconnaissance of the project area was undertaken primarily to ascertain water depths and the presence of potential obstructions such as oil or gas platforms. This reconnaissance survey indicated sedimentation had occurred in some areas with more than 3 feet of deposition since the NOAA charts were prepared.

The survey results indicated that while numerous magnetic and side scan anomalies were located in the project area, most of these were attributable to modern debris, or signatures associated with pipelines or cables. Several anomaly clusters exist, which may represent shipwrecks, but the geomorphological and bathymetric data obtained during the survey indicates that between 5.2 to 6.4 m. of sedimentation has occurred in the area between 1839 and the present. Any vessel wrecked more than 157 years ago could have at least 18 feet of sediment covering them. As a result of this survey, it is therefore concluded that the disposal of dredged materials in the Atchafalaya ODMDS would not add appreciably to the impact already induced by progradation during the last century. In addition, the proposed dredging of the present authorized 24-foot channel to 28 feet would also not affect historic shipwreck given the deposition that has occurred in this area.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

Continued use of the current ODMDS and the existing Section 404 disposal site location will not impact any recorded cultural resources.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

Proposed use of the ODMDS and the proposed Section 404 disposal site will not impact any recorded cultural resources.

CZM MANAGEMENT PLANS

Existing Conditions

The basis for the Louisiana Coastal Zone Management Program is the State and Local Coastal Resources Management Act of 1978. The Act puts into effect a set of State coastal policies and coastal use guidelines that apply to coastal land use and water resources decision-making. The coastal use guidelines are implemented through coastal use permits and in-lieu permits. A separate Coastal Zone Consistency statement addressing the applicable guidelines has been prepared and forwarded to the Louisiana Department of Natural Resources.

Future Conditions with Continued Use of Current Eastern ODMDS and Section 404 Disposal Site

It has been the policy of the State of Louisiana to put to beneficial use, to the fullest extent possible, the use of dredged material under the purview of the Louisiana Coastal Zone Management Plan. Engineering studies have indicated that transport of material from the Atchafalaya bar channel to use in any nearshore location would be cost and equipment prohibitive. Material used in the Section 404 site has created an intertidal area for a seabird nesting area.

Future Conditions with Proposed Western ODMDS and Section 404 Disposal Site

It has been the policy of the State of Louisiana to put to beneficial use, to the fullest extent possible, the use of dredged material under the purview of the Louisiana Coastal Zone Management Plan. Engineering studies have indicated that transport of material from the Atchafalaya bar channel to use in any nearshore location would be cost and equipment prohibitive. Material will be used in the Section 404 site to create an intertidal area for a seabird nesting area.

HAZARDOUS TOXIC AND RADIOACTIVE WASTES

Dredged material qualifies as HTRW per Engineering Regulation 1165-2-132 (26 June 1992), only if it is within the boundaries of an EPA-designated CERCLA or National Priority List (Superfund) site, or if it is within the boundaries of a site designated by a state for a response action under CERCLA. Neither the navigation channel nor the proposed disposal areas are within the boundaries of such areas.

CUMULATIVE IMPACTS

The cumulative impacts of the project are likely to be increased sedimentation of deltaic habitats to the west of the Atchafalaya River Bar Channel, resulting in benefits for wildlife and essential fish habitats in the area. There is a possibility that a progressive deepening of the channel could take place to handle larger ships and additional cargo.

EVALUATION OF NEW DISPOSAL SITE

This section contains an evaluation of the environmental consequences of selecting and utilizing the proposed ODMDS. This evaluation is based on 11 specific and 5 general criteria (40 CFR 228.6 and 228.5) as required by the MPRSA.

Specific Criteria

1. Geographic Location. The proposed Atchafalaya River bar channel ODMDS is rectangular-shaped, located west of and parallel to the Atchafalaya River bar channel, and is approximately 28.9 km (18.0 miles) long and 4.8 km (3.0 miles) wide (Figure 3). The boundary coordinates of

the proposed ODMDS site are 29°23'14"N, 91°26'35"W; 29°21'38"N, 91°24'14"W; 29°09'16"N, 91°35'12"W; 29°10'52"N, 91°37'33"W. The depth of the site ranges from 2 to 7 m and the total area is approximately 13,990 ha (54 sq mi.). The center of the ODMDS is approximately 31 km (19 miles) from the mouth of the Atchafalaya River. North Point of Point au Fer Island is about 4 km (2.5 miles) east of the northern end of the proposed site. Point au Fer Shell Reef, an area that has been subjected to extensive shell dredging, lies just shoreward of the proposed site.

The continental shelf is approximately 150 km (93 miles) wide off the Atchafalaya River. It is a gently sloping ($<1^\circ$) submarine plain with many isolated sea knolls and seamounts (DOI/BML 1978, Weissberg et al. 1980a,b, Phillips and James 1988). The Atchafalaya River bar channel ODMDS is located in the nearshore (from shore to a depth of about 20 m) area of the plain. The site gently slopes at about 0.01° from a depth of about 1.4 m at its nearshore end to about 6.6 m at its seaward end. Except for being located adjacent to the dredged channel, the area occupied by the ODMDS is typical in depth and bottom topography to the overall Atchafalaya River mouth area.

2. Distance from Important Living Resources. The northwestern Gulf of Mexico is a breeding, spawning, nursery, and feeding area for shrimp, menhaden, and bottomfish. To complete life cycles, many of the species migrate seasonally between the coastal estuaries and the Gulf. Because the timing varies by species, some migration can occur at almost any time of the year (Day et al. 1989).

The proposed ODMDS is located in a region dominated by species that are estuary-related (Darnell et al. 1983, Phillips and James 1988, Day et al. 1989). This group of organisms is generally most abundant off Louisiana, but extends from the Mississippi River Delta to south of Brownsville, Texas. Off the coast of Louisiana, this group accounts for most of the region's commercially important shrimp and fish. Commercially important estuarine species include white shrimp, brown shrimp, Gulf menhaden, and sand seatrout. Commercially important shellfish and finfish that inhabit the nearby bay environment include oyster, blue crab, black drum, white shrimp and brown shrimp.

Limited interferences with nearshore fisheries may occur during disposal of dredged material. The Atchafalaya estuary has a broader expanse of direct connection with the open Gulf of Mexico than any other estuary along the Louisiana coast. A small portion of this passage route would be unavailable for movement/migration of some marine organisms (e.g. shrimp) during periods of active dredging and disposal. Also, the settling disposal material and the sediment plume in and near the ODMDS would impede the movement/migration of marine organisms between the Gulf and Atchafalaya Bay. However, the effect of these impediments on the movement/migration of marine organism populations affected, would be very small and probably undetectable. The stress and possible mortality of individual organisms encountering adverse conditions during dredging and disposal operations in the ODMDS would be negligible compared to the passage of the far greater majority of individuals crossing in to or out of the estuary at other locations.

Disposal of material at the proposed ODMDS would have negligible effects on endangered and threatened species. Occurrences of whales off Louisiana are considered rare and because the animals generally inhabit waters far deeper than those in the proposed ODMDS, it is unlikely that dredged-material disposal operations would have any impact. Sea turtles could potentially inhabit the ODMDS and dredging operations could affect sea turtles through incidental take and by degrading the habitat. Hopper dredging has been identified as a source of mortality to sea turtles in inshore waters (Dickerson and Nelson 1990, Magnuson et al. 1990, USFWS and NMFS 1991, 1992a,b). However, designation of the ODMDS has been requested for the placement of future maintenance material dredged from the Atchafalaya River Bar Channel by hydraulic cutterhead pipeline dredge and thru agitation and dredging by hopper dredge. If hopper dredges are used, there is a possibility of impact to sea turtles. Hydraulic cutterhead pipeline dredging operations have not been identified as a source of sea turtle mortality. Hopper dredging will be conducted in accordance with all reasonable and prudent measures, and implementing terms and conditions, provided to the District by the NMFS in their 1995 Biological Opinion and any subsequent Biological Opinion to avoid sea turtle mortality.

3. Distance from Beaches and Other Amenities. The nearest point of land is North Point of Point au Fer Island (Figure 1), about 3.0 km from the northeast end of the ODMDS. It may be possible to observe the disposal plume from North Point or from boats in the vicinity during the active period of dredged-material disposal within the site. The plume is expected to dissipate quickly after completion of the disposal operations. Except for the minor affects of these limited observations, there should be no effects of the aesthetics of the area. Recreational parks or beaches are not in proximity to the proposed ODMDS.

4. Types and Quantities of Material to be Disposed. The material dredged from the Atchafalaya River bar channel generally consists of approximately 11% sand, 52% silt, and 37% clay (Dettmann and Tracey 1990). The volume of dredged material to be removed from the Atchafalaya Bar Channel and to be disposed is approximately 6.8 to 8.4 million m³ (9.0 to 12.0 million cubic yards) (Fiscal Year 2002 Environmental Dredging Conference, USACE 2001).

Material is removed from the Atchafalaya River bar channel using a hydraulic cutterhead pipeline dredge and released within the ODMDS as uncohesive slurry. The bar channel is dredged annually and the average length of the dredging contract is 60 to 90 days.

It is expected that future disposal operations will follow the past disposal pattern with respect to types, quantities, and methods of release. Any material disposed of at the site would be required to comply with the criteria of the Ocean Dumping Regulations (40 CFR Parts 220 to 229). None of the material will be packaged in any way.

5. Feasibility of Surveillance and Monitoring. The proposed ODMDS is shallow and close to shore, which facilitates surveillance and monitoring of the site. Operational observations can be made using shore-based radar, aircraft, and day-use boats. Monitoring would be facilitated by the database that has been established for the ODMDS by surveys conducted by IEC (1983), EPA-ERLN (Dettmann and Tracey 1990), and Flemer et al. (1994). A site management plan incorporating monitoring requirements has been developed in cooperation with the EPA for the proposed ODMDS, and is attached to this EA.

6. Dispersal, Horizontal Transport, and Vertical Mixing Characteristics of the Area. Current patterns in the vicinity of the proposed ODMDS are highly complex. Although tides, loop current intrusions, and river flow may affect the local currents, these currents are influenced predominately by winds (Phillips and James 1988). Thus, the direction and velocity of the currents vary throughout the year.

Winds are a particularly strong driving force in late autumn, winter, and early spring. Net water flow in the winter is to the northwest; however, rapid flow reversals to the southeast occur periodically in concert with wind direction (Crout and Hamiter 1981, Phillips and James 1988, Walker 1998). Nearshore current patterns are somewhat more complex in summer. In the absence of strong winds and the presence of a stratified water column, current patterns become considerably less distinct. Net flow in summer can be either to the east or west (Crout and Hamiter 1981, Phillips and James 1988, Walker 1998). Spinoff eddies from the loop current occasionally enter the region, producing flows to the southeast near the existing site (Weissberg et al. 1980a,b).

Current speeds generally range from 10 to 30 cm/s in the vicinity of the ODMDS. Minimum speeds of 5 to 30 cm/s occur in June, July, and August, whereas the highest recorded current speeds in the vicinity range from 70 to 140 cm/s and occur during strong winter storms (Weissberg et al. 1980a,b). Stagnant periods with little or no current motion, lasting as long as 6 days, have been recorded in April, May, and July (Weissberg et al. 1980a,b). Current speeds may reach 200 cm/s during hurricanes, which occur about once every 4 years (Weissberg et al. 1980a,b; Phillips and James 1988).

In the absence of strong currents, the bulk of the dredged material being disposed settles on the bottom of the particular area of a site being used at that time. A portion of the plume (fines) will be transported in the direction of the current over a wider area of the disposal site and, to some extent, outside the disposal site. This material will eventually settle over a wide area. Plume measurements were taken by Schubel et al. (1978) during dredged-material disposal operations at the existing Atchafalaya ODMDS. Background suspended solids concentrations were approximately 100 mg/l and currents were to the southwest at 9 to 19 cm/s. During disposal operations, suspended solids concentrations as high as 300 mg/l were found 0.41 km downstream from the end of the discharge pipe. During another set of observations made when current directions were to the west and to the northeast, suspended solids concentrations of 300 mg/l were measured at 0.97 km to 1.64 km downstream from the end of the discharge pipe.

The dredged material represents a small portion of the material carried into the general area by the discharge of the Atchafalaya River. During disposal operations, a mound of dredged material may be initially formed within the ODMDS. However, periodic resuspension of the dredged material results in the disappearance of the mound through dispersal and horizontal transport. The net result would be the remixing of dredged material with other materials from the original source. The natural sediment load of the Atchafalaya is estimated to be 146 million m³/year, of which 117 m³/year is deposited in the prograding delta and 53 million m³/year is transported primarily to the west (Wells and Kemp 1982). Naturally occurring suspended solid concentrations of 250 to 400 mg/l have been recorded in Atchafalaya Bay, and concentrations of

more than 800 mg/l have been reported seaward of Point au Fer (Wells and Kemp 1982). The high offshore concentration was attributed to wave-induced resuspension of the area's soft sediments.

7. Effects of Previous Disposals. The area proposed for selection has not been previously used for the disposal of dredged material. Some of the sediments disposed on the east side of the channel, however, do move into the area as a result of littoral drift. Depths in the area over time have become shallower as dredged sediments and those sediments deposited from Atchafalaya River discharge fill the area. No measurable effects from previous disposals have been noticed.

8. Interference with Other Uses of the Ocean. The proposed ODMDS is outside the navigation channel and not in the path of ocean-going vessels. Some smaller boats may pass over the site; however, since any dredge material mounds are expected to be short-lived, there should be interference with this passage. Hydraulic cutterhead dredges and disposal pipelines do cause minor interference, but is not expected to interfere with shipping traffic. All dredging and disposal operations are closely coordinated among the dredging operators and the shipping interests to avoid interference with traffic. Without dredging, the channel would be impassable to most shipping.

Recreational fishing and boating takes place throughout the area in the vicinity of the ODMDS. Ship Shoal is located approximately 46 km east of the ODMDS; Trinity and Tiger Shoals are about 46 km west of the site. Smaller fishing shoals are within 4.6 km of the ODMDS and Point au Fer Reef is located just north of the site. Overall, there would be some short-term interference with recreational activities at the ODMDS, particularly during disposal operations. The plumes of dredged material could have a minor impact on targeted fish stocks, temporarily affecting recreational fishing in the area. This interference would be short-term and restricted to the relatively small area of the ODMDS being used for disposal at the particular time. Trawling and crabbing in the channel and near the disposal area will experience interference during dredging operations.

There is active oil and gas development in the area occupied by the ODMDS. Several natural gas pipelines cross the ODMDS. Past experience with use on the prior ODMDS has not indicated interference with oil and gas exploration or production. No other types of mineral extraction are taking place either within the site or within the general vicinity of the site. It is not expected that use of the site for disposal of dredged material would interfere with any other legitimate use of the ocean.

9. Existing Water Quality and Ecology. The water quality and ecology of the ODMDS generally reflect that of the nearshore region off the Louisiana coast affected by discharges from the Atchafalaya River. The variations in water quality depend on the amount and mixing of freshwater runoff, which is highly variable (Phillips and James 1988). Data developed during the IEC (1983) surveys and the EPA-ERLN (Dettmann and Tracey 1990) survey is generally comparable to historic data for the area as summarized in Phillips and James (1988). Neither the IEC (1983) nor the EPA-ERLN (Dettmann and Tracey 1990) water column data were taken during dredged material disposal operations; therefore, these data reflect normal ambient conditions.

10. Potential for Recruitment of Nuisance Species. In the past, disposal of dredged material at the existing ODMDS has not resulted in the development or recruitment of nuisance species. Disposal of dredged material at the proposed site is not expected to result in such development or recruitment.

11. Existence of Significant Natural or Cultural Resources. The USACE Submerged Cultural Resource Database contains historical accounts of 52 shipwrecks in the Atchafalaya River, and 7 shipwrecks in the Atchafalaya Bay. These records indicate historical use of the Atchafalaya Basin. In 1996, a remote sensing survey was conducted for the ODMDS on the eastern side of the channel. This study found that while several anomaly clusters existed, which may represent shipwrecks, the geomorphological and bathymetric data obtained during the survey indicates that between 5.2 to 6.4 meters of sedimentation had occurred in the area between 1839 and the present. Any vessel wrecked more than 157 years ago could have at least 18 feet of sediment covering them. As a result of this survey, it was therefore concluded that the disposal of dredged materials in the Atchafalaya ODMDS would not add appreciably to the impact already induced by progradation during the last century. No further cultural resource work was deemed necessary for this ODMDS area. The results of this 1996 remote sensing study can be applied to the present study given its close proximity to the previously designated ODMDS and to the dredging of the test sections. We feel that the results apply to this area and that no further work on this section of the Atchafalaya is necessary.

General Criteria

1. Minimal Interference with Other Activities. The proposed ODMDS is located adjacent to and parallel to the Atchafalaya River Bar Channel. This location reduces the distance that the dredged material must be transported, minimizing interference with other activities in the marine environment. There may be some short-term interference with fishing activities during disposal operations. No interference with these or other marine activities is expected outside the brief periods of disposal operations. There have been no impacts to existing oyster leases located northeast of the ODMDS area near Point au Fer from the use of the existing ODMDS, and no impact is expected to occur in the future as a result of using the proposed ODMDS.

2. Minimize Changes in Water Quality. Disposal of dredged material would produce a turbidity plume. This plume would quickly be dispersed to the point where it is indistinguishable from the turbidity naturally occurring in the area. The nearest point of land is North Point of Point au Fer Island, approximately 3.7 km (2.3 miles) from the north end of the disposal site. The Atchafalaya Delta Wildlife Management Area, managed by the Louisiana Department of Wildlife and Fisheries, encompasses the developing delta in Atchafalaya Bay. Turbidity resulting from dredged-material disposal is not expected to be distinguishable from the natural turbidity occurring in the vicinity of North Point and in Atchafalaya Bay.

There are no marine sanctuaries in the immediate vicinity of the ODMDS. Shell Keys and Russell Sage – Marsh Island Wildlife refuges are approximately 46 km (29 miles) west of the existing ODMDS. Fishnet Bank, the nearest protected Area of Biological Significance, is

approximately 167 km (104 miles) south of the ODMDS. There are commercial fisheries and shellfisheries throughout the region. Any impacts from disposal are expected to be minor.

The transport of suspended materials from the ODMDS would mainly be parallel to the coastline, and concentrations of suspended materials produced during dredging operations is expected to be within background levels within a few kilometers of the ODMDS. The potential effect on oyster beds in nearby Atchafalaya Bay is expected to be minimal. These organisms, as well as others in the region, are naturally subjected to periodic episodes of high, suspended-solid concentrations from wave-induced resuspension of nearshore sediments and from the waters of the Atchafalaya River.

3. Interim Sites Which Do Not Meet Criteria. Studies to date indicate that the proposed ODMDS meets the requirements of the MPRSA. Surveys of the site indicated that water quality, sediments, and biological life were generally similar to surrounding areas. An existing ODMDS site is located immediately across the navigation channel from the proposed site. No adverse environmental effects were detected outside the site boundaries during site investigation surveys (IEC 1983, Dettman and Tracey 1991, Flemer et al. 1994, Trulli 1996).

4. Size of Sites. The configuration of the proposed ODMDS is designed for easy disposal of material dredged from the Atchafalaya River bar channel and to minimize the return of dredged material placed in the ODMDS to the channel. This consideration led to the establishment of a long, narrow site parallel to the channel. Regardless of the original considerations, the site lends itself to surveillance of individual dredged-material disposal operations and long-term monitoring of the site. The long, relatively narrow configuration of the proposed ODMDS limits its overall area. This site design can assist with calculating the conservation of elements in the dredged material between dredging and final disposal operations. This calculation could be very valuable if an area of contamination is located in the proposed ODMDS. Conversely, the orientation of the ODMDS broadside to the prevailing currents in the area increases the chance that disposed material will be moved off the site.

5. Sites Off the Continental Shelf. In this area of the Gulf of Mexico, a disposal site beyond the continental shelf would be at least 135 km (84 miles) from the area to be dredged. A dredged-material disposal site beyond the continental shelf would not be feasible due to, among other things, increased safety risks and increased cost of transportation, site characterization studies, monitoring, and surveillance.

COORDINATION

The following agencies, as well as other interested parties, will receive a copy of this Environmental Assessment:

U.S. Dept. of the Interior, Fish and Wildlife Service
U.S. Environmental Protection Agency, Region VI
U.S. Department of Commerce, National Marine Fisheries Service
U.S. Department of Transportation, Coast Guard
Natural Resources Conservation Service; State Conservationist

Advisory Council on Historic Preservation
Louisiana Department of Wildlife and Fisheries
Louisiana Department of Natural Resources, Coastal Resources Program
Louisiana State Historic Preservation Officer
Louisiana Department of Environmental Quality
Louisiana Department of Transportation and Development
St. Mary Parish Government
Morgan City Harbor and Terminal District

This EA will be distributed to appropriate Congressional, Federal, state, and local interests. A copy of the mailing list is available upon request. A Coastal Zone Management Consistency Determination has been prepared. A Public Notice has been circulated to interested parties. Application for state water quality certification for the proposed action will be made by DISTRICT.

MITIGATION

Beneficial utilization of the dredged material in the Section 404 site would result in overall positive environmental benefits as eventually the material will become subaerial and create offshore habitat for nesting seabirds; therefore, no mitigation is proposed with the preferred alternative.

COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

Environmental compliance for the proposed action would be achieved upon: coordination of this EA and draft Finding of No Significant Impact (FONSI) with appropriate agencies, organizations, and individuals for their review and comments; U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) confirmation that the proposed action would not be likely to adversely affect any endangered or threatened species; Louisiana Department of Natural Resources concurrence with the determination that the proposed action is consistent, to the maximum extent practicable, with the Louisiana Coastal Resources Program; receipt of a Water Quality Certificate from the State of Louisiana; public review of the Section 404(b)(1) Public Notice; signature of the Section 404(b)(1) Evaluation; receipt of the Louisiana State Historic Preservation Officer Determination of No Affect on cultural resources; receipt and acceptance or resolution of all USFWS Fish and Wildlife Coordination Act recommendations; and receipt and acceptance or resolution of all NMFS Essential Fish Habitat recommendations, and comments.

PREPARED BY

EA #348 and the associated draft FONSI were prepared by Mr. Christopher G. Brantley, Biologist, Ms. Joan M. Exnicios, Archaeologist, Dr. Tonya Koob, Hydraulic Engineer, Mr. Dave Beck, Design Engineer, Mr. Kirk Dietrich, Engineering Technician, and Dr. Linda G. Mathies, technical and program review. The preparers may be contacted at U.S. Army Corps of Engineers, New Orleans District; P.O. Box 60267; New Orleans, Louisiana 70160-0267.

CONCLUSION

The U.S. Army Corps of Engineers, New Orleans District, proposes to construct advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project; proposes to designate an additional open water site pursuant to Section 404 of the Clean Water Act (CWA) of 1977 for the beneficial use of dredged material removed from the bar channel; and proposes to designate an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel. No significant impacts to physical, biological, or other activities and resources are anticipated from this project.

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APPENDIX A

SITE MANAGEMENT PLAN
ATCHAFALAYA RIVER BAR CHANNEL
OCEAN DREDGED MATERIAL DISPOSAL SITE - WEST

SITE MANAGEMENT PLAN
ATCHAFALAYA RIVER BAR CHANNEL
OCEAN DREDGED MATERIAL DISPOSAL SITE - WEST

1.0 GENERAL

The Marine Protection, Research and Sanctuaries Act (MPRSA) of 1972 (33 U.S.C. §§ 1401-1445; 16 U.S.C. §§ 1431 et seq; 33 U.S.C. 1271) is the legislative authority regulating the disposal of dredged material into ocean waters, including the territorial sea. The transportation of dredged material for the purpose of disposal into ocean waters is permitted by the Corps of Engineers or, in the case of federal projects, authorized for disposal under MPRSA Section 103(e), applying environmental criteria established by the Environmental Protection Agency in the Ocean Dumping Regulations (40 CFR Parts 220-229).

Section 102(c) of the MPRSA and 40 CFR Part 228.4(e)(1) authorize the Environmental Protection Agency (EPA) to designate ocean dredged material disposal sites (ODMDS) in accordance with requirements at 40 CFR Parts 228.5 and 228.6. Section 103(b) of MPRSA requires that the Corps of Engineers (COE) use dredged material sites designated by EPA to the maximum extent feasible. Where use of an EPA-designated site is not feasible, the COE may, with concurrence of EPA, select an alternative site in accordance with MPRSA 103(b).

Part 228.3 of the Ocean Dumping Regulations established disposal site management responsibilities; however, the Water Resources Development Act of 1992 (WRDA 92; Public Law 102-580) included a number of amendments to the MPRSA specific to ODMDS management. Section 102(c) of the MPRSA, as amended by Section 506 of WRDA 92, provides that:

1. Site management plans shall be developed for each ODMDS designated pursuant to Section 102(c) of the MPRSA.
2. After January 1, 1995, no ODMDS shall receive a final designation unless a site management plan has been developed.
3. For ODMDSs that received a final designation prior to January 1, 1995, site management plans shall be developed as expeditiously as practicable, but no later than January 1, 1997, giving priority to sites with the greatest potential impact on the environment.
4. Beginning on January 1, 1997, no permit or authorization for dumping shall be issued for a site unless it has received a final designation pursuant to Section 102(c) of the MPRSA or it is an alternate site selected by the COE under Section 103(b) of the MPRSA.

This site management plan for the Atchafalaya River Bar Channel Ocean Dredged Material Disposal Site - West was developed jointly by the U.S. Environmental Protection Agency, Region 6 (EPA, Region 6) and the U.S. Army Corps of Engineers, New Orleans District (USACE, NOD). In accordance with Section 102(c) of the MPRSA, as amended by WRDA 92, the plan includes the following:

1. a baseline assessment of conditions at the site;
2. a program for monitoring the site;
3. special management conditions or practices to be implemented at the site that are necessary for protection of the environment;
4. consideration of the quantity of dredged material to be disposed of at the site, and the presence, nature, and bioavailability of the contaminants in the material;
5. consideration of the anticipated use of the site over the long term, including the anticipated closure date for the site, if applicable, and any need for management of the site after the closure of the site; and
6. a schedule for review and revision of the plan.

1.1 SITE MANAGEMENT OBJECTIVES

The purpose of ocean dredged material site management is to ensure that disposal activities do not unreasonably degrade the marine environment or interfere with other activities (e.g., commercial and recreational navigation; commercial and recreational fishing, etc.) therein.

The specific objectives of management of the Atchafalaya River Bar Channel Ocean Dredged Material Disposal Site - West (ODMDS-West) are as follows:

1. beneficial use of all dredged material of suitable grain size for stacking when practicable and economically feasible;
2. ocean disposal of only that dredged material that satisfies the criteria set forth in 40 CFR Part 227 Subparts B, C, D, E, and G and Part 228.4(e) and is suitable for unrestricted placement at the ODMDS; and
3. avoidance of excessive and prolonged mounding either within the site boundaries or in areas adjacent to the site as a direct result of disposal operations.

1.2 ROLES AND RESPONSIBILITIES

In accordance with Section 102(c) of the MPRSA and with the Regional Memorandum of Understanding between USACE, NOD and EPA, Region 6, on Management of ODMDs signed March 15, 1988, EPA is responsible for designation of ODMDs. Where use of an EPA-designated site is not feasible, the USACE, NOD may, with concurrence of EPA, Region 6 select an alternative site in accordance with Section 103(b) of the MPRSA as amended by Section 506 of WRDA 1992.

Development of Site Management Plans for ODMDs within the New Orleans District is the joint responsibility of EPA, Region 6 and the USACE, NOD. Both agencies are responsible for assuring that all components of the Site Management Plans are implementable, practical, and applicable to site management decision making.

1.3 FUNDING

Physical, chemical, and biological effects testing of dredged material prior to disposal at the ODMD-West will be undertaken and funded by the USACE, NOD. The USACE, NOD also will be responsible for costs associated with disposal site hydrographic monitoring. Should monitoring indicate that additional studies and/or tests are needed at the ODMD, the cost for such work would be shared by the USACE, NOD and EPA, Region 6. Physical, chemical, and biological effects testing at the ODMD or in the site environs after disposal that is not required as a result of monitoring will be funded by EPA, Region 6. Funding of all aspects of this site management plan is subject to Congressional budget constraints.

2.0 DISPOSAL HISTORY

The Rivers and Harbors Act of June 25, 1910 authorized the USACE, NOD to construct and maintain the Atchafalaya River, Morgan City to the Gulf of Mexico, LA, project which provided a navigation channel 20 feet deep, 200 feet wide and 15.75 miles long from the 20-foot contour in the Atchafalaya Bay, approximately 4 miles beyond the mouth of the Atchafalaya River, to the 20-foot contour in the Gulf of Mexico. Traffic sufficient to warrant maintenance of the authorized navigation channel to full project dimensions did not immediately develop. The channel was progressively enlarged during maintenance events from 10- by 100-feet in 1939 to 20- by 200-feet in 1974.

The Rivers and Harbors Act of 1968 authorized construction of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, project that incorporated the existing project and provided for an increase in channel width of the navigation channel in Atchafalaya Bay and bar to 400 feet (Figure 1). Construction of the channel in the bay and bar was initiated in April 1974 and completed in December of the same year.

History of disposal of dredged material from the Atchafalaya River bar channel prior to construction of the enlarged channel in 1974 is incomplete. Dredging records dating back to 1957 indicate that maintenance of discontinuous reaches of the bay and/or bar channel occurred on an annual basis from 1957 until 1974 except for 1961. It is likely that dredged material was placed unconfined in open water on either side of the navigation channel.

Between 1974 and 1991, 765,000 - 10,700,000 cubic meters (1,000,000 - 14,000,000 cubic yards) of dredged material were removed annually during routine maintenance of the bar channel and were placed in the ODMDS located on the east side of the channel, hereafter referred to as ODMDS-East (Figure 2). Prior to the 1991 maintenance event, the 193-acre upper end of the ODMDS-East was incorporated into a 360-acre disposal area designated under Section 404 of the Clean Water Act for placement of dredged material for creation of islands for colonial nesting seabirds. Beginning with the 1991 maintenance event and during subsequent annual maintenance events, dredged material from the bar channel suitable for stacking has been used beneficially by deposition in the Section 404 site. Beginning in 1991, 306,000 - 1,530 cubic meters (400,000 - 2,000,000 cubic yards) of dredged material has been placed annually at the Section 404 site. Material not suitable for beneficial use has been placed in the ODMDS-East. Table 1.1 provides a summary of the disposal history for the Atchafalaya River Bar Channel ODMDS-East.

Maintenance dredging of the Atchafalaya River bar channel is required on an annual basis and only material from the navigation channel has been placed in the ODMDS-East. Material is removed using hydraulic cutterhead pipeline dredges or hopper dredges. Hydraulic cutterhead pipeline dredges discharge dredged material as a slurry through a floating pipeline into the ODMDS-East. Hopper dredges perform agitation dredging and dredge and haul to the ODMDS-East. Dredging in the bar channel normally begins in January and continues through October; however, dredging is not continuous. Dredges may be assigned to the bar channel anytime between January and October to restore authorized channel dimensions. When a dredge is working in the bar channel, disposal operations will occur 24 hours a day, 7 days a week until authorized channel dimensions are restored.

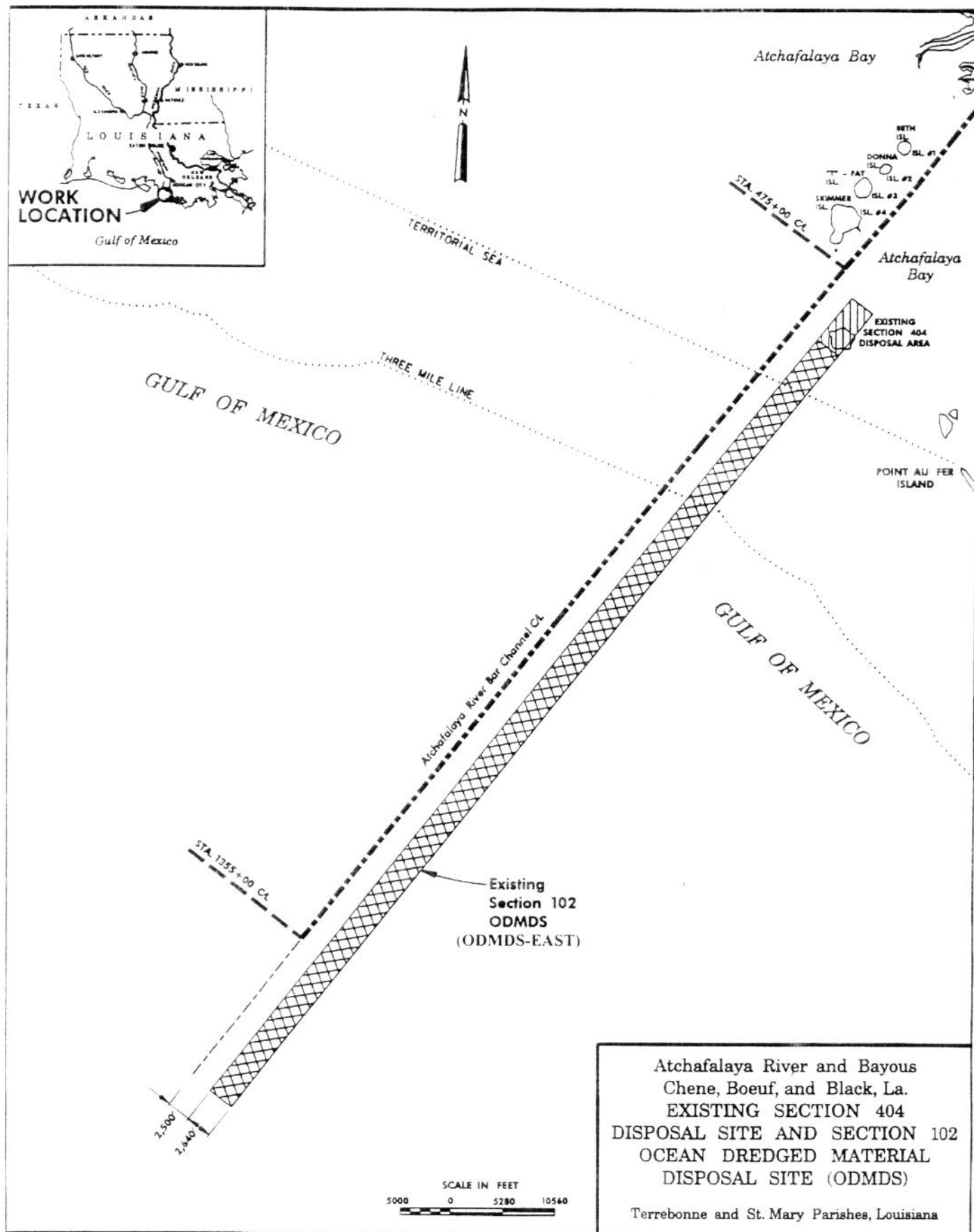


Figure 2

Table 1.1. Date of disposal operations, methods of disposal, quantities of material disposed, reach dredged. Atchafalaya River bar channel reach extends from C/L Sta. 475+00 to 1355+00. Available information does not distinguish between the Atchafalaya River bar channel and others areas dredged prior to 1973.

DATE OF DISPOSAL OPERATION	METHOD OF DISPOSAL OPERATION	QUANTITIES OF MATERIAL DISPOSED (cubic yards)	REACH DREDGED
26 Jun - 16 Sep 00	cutterhead	10749971	C/L Sta. 650+00 to 1340+00
8 Aug - 23 Oct 99	cutterhead	10847337	C/L Sta. 650+00 to 1340+00
16 Aug - 21 Nov 98	cutterhead	10972476	C/L Sta. 650+00 to 1340+00
30 Sep - 9 Dec 97	cutterhead	8934860	C/L Sta. 650+00 to 1340+00
16 Apr - 16 Dec 96	cutterhead	12279965	C/L Sta. 650+00 to 1340+00
23 Jun to 25 Oct 95	cutterhead	9311000	C/L Sta. 475+00 to 1340+00
14 Apr to 26 May 94	cutterhead	1836445	C/L Sta. 568+00 to 817+80 and horseshoe area
27 May to 16 Oct 94	cutterhead	8757597	C/L Sta. 475+00 to 1340+00
10 Jun to 16 Sep 93	cutterhead	11700000	C/L Sta. 475+00 to 1340+00
14 Aug to 14 Sep 93	cutterhead	2254937	C/L Sta. 780+00 to 1010+00
14 Mar to 19 May 93	cutterhead	4035076	C/L Sta. 545+00 to 1057+00
11 May to 2 Dec 92	cutterhead	9630972	C/L Sta. 475+00 to 1340+00
20 Feb to 4 May 92	cutterhead	1000000	C/L Sta. 640+00 to 920+00 to 1030+00
7 May to 25 Sep 91	cutterhead	9559859	C/L Sta. 475+00 to 1340+00

Table 1.1 continued.			
31 Jan to 17 Apr 91	cutterhead	1643900	C/L Sta. 34+35 to 1429+15
2 Aug to 17 Nov 90	cutterhead	9446109	C/L Sta. 0+00 to 1340+00
29 Jun to 12 Sep 89	cutterhead	11111114	C/L Sta. 485+00 to 1325+00
6 Aug to 22 Nov 88	cutterhead	10302961	C/L Sta. 485+00 to 1325+00
2 Jul to 31 Aug 87	cutterhead	10035209	C/L Sta. 485+00 to 1325+00
25 Sep 85 to 8 Feb 86	cutterhead	8500000	C/L Sta. 485+00 to 1325+00
26 Jun to 1 Nov 83	cutterhead	10674563	C/L Sta. 475+00 to 1300+00
1982	NO DREDGING		
4 Jul to 10 Nov 81	cutterhead	9236530	C/L Sta. 475+00 to 1300+00
1980	NO DREDGING		
8 Dec 78 to 02 Apr 79	cutterhead	10992792	C/L Sta. 0+00 to 1340+00
1978	NO DREDGING		
1977	NO DREDGING		
21 Aug 75 to 10 Feb 77	cutterhead	10888170	C/L Sta. 0+00 to 1274+36
1975	NO DREDGING		
11 Apr to 6 Dec 74	cutterhead	14409109	C/L Sta. 478+84.2 to 1274+36.1
7 Jun to 21 Aug 73	cutterhead	3557062	C/L Sta. 0+00 to 1150+00 -16 MLG+2X200

Table 1.1 continued.

12 Jul to 6 Oct 71	cutterhead	2348112	Range 50-112 -16MLG+2X200
3 Jul to 15 Aug 70	cutterhead	1249077	Range 1-43 -16MLG+2X200
30 Aug to 21 Dec 69	cutterhead	2925226	Range 50-115 -16MLG+2X200
1 Jul to 22 Aug 68	cutterhead	824228	not listed
13 Oct to 5 Dec 68	cutterhead	1263258	Range 5 1/2 -43 -17MLGX200
4 Sep 67 to 30 Jun 68	cutterhead	642632	Atchafalaya River, Morgan City to Gulf
26 Aug 66 to 18 May 67	cutterhead	1769284	Atchafalaya River, Morgan City to Gulf
25 Feb 66 to 27 Dec 67	cutterhead	3024214	Range 6 1/2 -43, 50-115 -16 MLG +2/x200
4 Apr to 2 May 65	cutterhead	765150	Range 13-23, 35-40 -17MLG+1X200
10 Aug to 25 Sep 64	cutterhead	3138401	Range 6 1/2 - 43, 51-115 -16MLG+2X200
29 Aug to 15 Oct 63	cutterhead	3002752	Range 14-41, 55-112 -16MLG+2X200
5 Apr to 22 Jun 62	cutterhead	2735635	Range 6-22, 47-109 -16MLG+2X200
1 Jun to 5 Jul 60	cutterhead	1711680	Range 11-43, -16MLG+2X200
1 Nov to 22 Dec 60	cutterhead	1866915	-16MLG+2X200
23 Sep to 28 Nov 59	cutterhead	2399720	Sta. 22+00 to 394+60, 40+50 to 392+50, -14MLG+2X145
20 Nov 57 to 26 Jan 58	cutterhead	1937705	Sta. 48+55 to 323+80, 47+50 to 537+45 -14MLG+2X145

3.0 NEED FOR ATCHAFALAYA RIVER BAR CHANNEL ODMDS-WEST

The Final Environmental Impact Statement (FEIS), Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana; the Final Supplement to the FEIS, Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana; and a Supplemental Information Report, Atchafalaya River and Bayous Chene, Boeuf, and Black, assessed the impacts of operation and maintenance of the authorized navigation channel to a depth of 20 feet with 2 feet of advanced maintenance and 2 feet of allowable overdepth from the U.S. Highway 90 crossing over Bayou Boeuf to the Gulf of Mexico via the Gulf Intra-coastal Waterway, Bayou Chene, Avoca Island Cutoff, the Lower Atchafalaya River, and across Atchafalaya Bay to the Gulf of Mexico. Historically, the navigation channel has been maintained to a depth of 24 feet (20 feet deep with 2 feet advanced maintenance and 2 feet of allowable overdepth).

Currently, the presence of “fluff” or fluid mud (terms used interchangeably herein) in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project has made it difficult to provide a reliable, navigable -20-foot channel through the bar. The “fluff” returns to the channel within weeks after maintenance dredging is complete and interferes with the passage of certain types of vessels to the Port of Morgan City.

The USACE, NOD has committed to more frequent maintenance dredging in the bar channel to alleviate the “fluff” problems. The USACE, NOD also has tasked the Engineering Research and Development Center (ERDC) to conduct studies in the bar channel and make recommendations for a permanent resolution of the fluid mud issue. The ERDC studies are designed to determine the fate of dredged material placed into the existing ODMDS-East; to investigate alternative locations for the Atchafalaya River bar channel ODMDS; to determine if deepening the bar channel would alleviate the “fluff” problem; to recommend special survey techniques to identify fluid mud layers; to determine if sectional advanced maintenance would provide shoal storage and make the deepened portion of the channel more hydraulically efficient; and to investigate non-traditional channel training works to increase sediment transport capacity and reduce the annual shoaling volume.

In response to a proposal from the ERDC, the USACE, NOD will construct five (5) advanced maintenance test sections in the bar channel in that portion of channel with the most rapid shoaling rate. The test sections would be constructed to a depth of -28.0 feet Mean Low Gulf (MLG), i.e., 4 feet below the currently maintained depth of -24 feet MLG. Construction of the proposed test sections and monitoring of shoaling rates in the sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time between maintenance events.

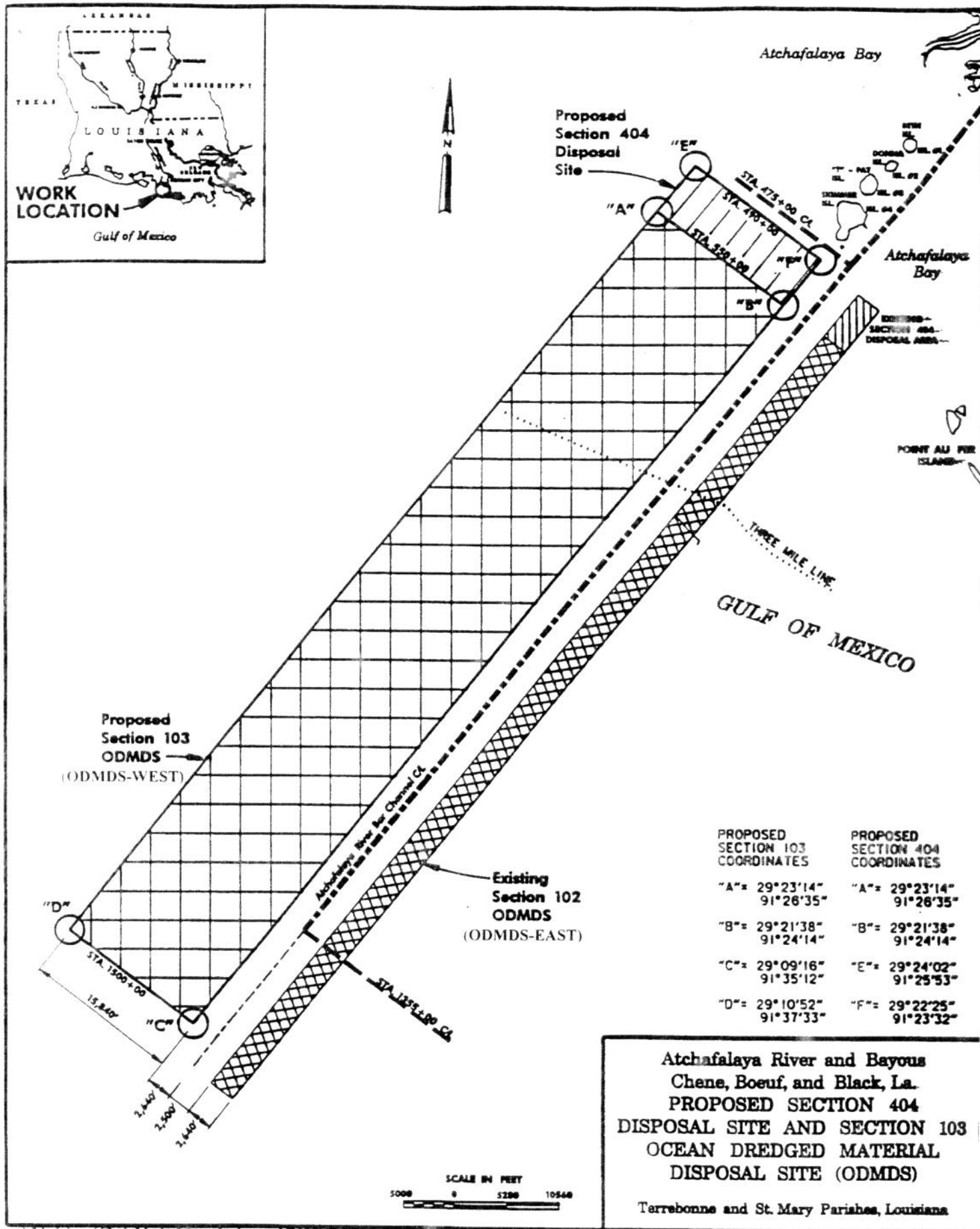
The USACE, NOD also is proposing selection and designation of additional disposal sites on the west or right-descending bank of the bar channel in response to concerns that dredged material placed on the ODMDS-East, is being transported back into the navigation channel by prevailing currents (Figure 3). The USACE, NOD will select and use the proposed ODMDS-West under its Section 103 authority for a period of five years and will designate and use the Section 404 site for the same period. The ERDC will monitor conditions in and adjacent to the Atchafalaya River bar channel during 2002 and possibly beyond. Details of the ERDC monitoring effort are included in section 8.0 MONITORING PROGRAM. In addition, the USACE, NOD will analyze dredging records and surveys of the ODMDS-West and the navigation channel to test the hypothesis that placement of dredged material from maintenance of the bar channel on the west side of the channel will decrease the shoaling rate and the frequency of maintenance dredging. If monitoring indicates that placement of dredged material into the ODMDS-West decreases the frequency and need for maintenance of the bar channel, the USACE, NOD would request that the Environmental Protection Agency (EPA) designate the ODMDS-West pursuant to Section 102(c) for continuing use.

4.0 BASELINE ASSESSMENT

4.1 Site characterization

The Atchafalaya River Bar Channel ODMDS-West is located west of and parallel to the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, bar channel and is 28.9 kilometers (km) (18.0 miles) long (Figure 3.). The coordinates of the rectangular-shaped site are as follows: 29°23'14"N, 91°26'35"W; 29°21'38"N, 91°24'14"W; 29°09'16"N, 91°35'12"W; 29°10'52"N, 91°37'33"W. The center of the site is approximately 31 km (19 miles) from the mouth of the Atchafalaya River. North Point of Point au Fer Island is about 4 km (2.5 miles) east of the northern end of the site. Point au Fer Shell Reef, an area that has been subjected to extensive shell dredging, lies just shoreward of the ODMDS.

Baseline conditions at the Atchafalaya River Bar Channel ODMDS-West have been assessed. Details of baseline conditions, including descriptions of the marine environment in the site vicinity and the physical, chemical and biological characteristics of the sediments and the water column at the site, are contained in Environmental Assessment # 348, "ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF, AND BLACK, LOUISIANA, CONSTRUCTION OF ADVANCED MAINTENANCE TEST SECTION AND ADDITIONAL DISPOSAL AREAS IN ATCHAFALAYA RIVER BAR CHANNEL," prepared by the USACE, NOD in March, 2002.



4.2 Summary of information used to determine size of site, life span, and to protect against storm-induced erosion.

The location of the ODMDS-West, i.e., adjacent and parallel to the Atchafalaya River bar channel on the west side of the channel, and the rectangular configuration of the site involves only short transport of the dredged material from the channel through floating pipeline to the site or short transport of dredged material to the site via hopper dredges. This minimizes interference with other activities such as fishing and navigation in the site environs during dredging and disposal operations. The site also is easily accessible for surveillance of dredged material disposal operations and monitoring.

Like most ODMDSs in the Gulf of Mexico, it is anticipated that the Atchafalaya River Bar Channel ODMDS-West is a dispersive site. The dredged material discharged into the site is expected to erode because of the high percentage of very fine-grained components and because of the location of the site in a high-energy inshore area where waves, currents, wind and tides constantly mix and redistribute the sediments and thus, the dredged material, over a wide area.

If monitoring determines that placement of dredged material into the ODMDS-West decreases the frequency and need for maintenance of the bar channel, the USACE, NOD will request that the EPA designate the ODMDS-West pursuant to Section 102 (c) for continuing use.

5.0 Dredged Material Characterization

5.1 Frequency of dredging and quantity of dredged material

Since 1974, the Atchafalaya River Bar Channel has been dredged every year except for 1975, 1977, 1978, 1980, and 1982, and dredged material has been placed in the ODMDS. The quantity of dredged material discharged into the ODMDS each year has ranged from 765 thousand cubic meters (1 million cubic yards) to 10.7 million cubic meters (14 million cubic yards). The dredged material generally is comprised of silty-clay with traces of sand (11% sand, 52% silt, 37% clay). It is anticipated that annual maintenance of the Atchafalaya River bar channel and disposal of dredged material into the ODMDS-West will continue in the future. During each maintenance event, from 6.9 to 9.2 million cubic meters (9.0 to 12.0 million cubic yards) of dredged material will be discharged into the ODMDS-West.

5.2 Summary of requirements used to determine suitability of dredged material for disposal at the site.

In accordance with 40 CFR Parts 225 and 227 of the Ocean Dumping Regulations, national implementation guidance for the MPRSA Section 103 Program (Ocean Dumping Program) was

developed jointly by the Corps of Engineers and the Environmental Protection Agency. The guidance was to define technical procedures for testing dredged material to assess its compliance with the applicable physical, chemical and biological test provisions of Part 227 of the Ocean Dumping Regulations. A national guidance manual was first issued in 1977 and an updated version, "Evaluation of Dredged Material Proposed for Ocean Disposal (Testing Manual)", was issued in February, 1991.

The 1991 manual, commonly referred to as the "1991 Green Book", contains summaries and discussions of the procedures for ecological evaluation of dredged material required by the Ocean Dumping Regulations, tests to implement them, definitions, sample-collection and preservation procedures, evaluative procedures, calculations, and interpretive guidance. The manual also provides supporting references required for the evaluation of dredged material discharge applications in accordance with the regulations.

Because the "1991 Green Book" was national in scope, development of more detailed implementation guidance tailoring the procedures of the manual to local needs was encouraged. In October 1992, the USACE, NOD and EPA, Region 6 signed a Regional Implementation Agreement (RIA), "Regional Implementation Agreement for Evaluating Dredged Material Proposed for Ocean Disposal Off the Louisiana Coast". This agreement was jointly developed by USACE, NOD and EPA, Region 6 to adapt the "1991 Green Book" procedures to the region. The RIA currently is under revision and the final draft is undergoing review.

The RIA applies to Corps Civil Works projects as well as to MPRSA Section 103 permit applications. It describes in detail the coordination process to be followed for dredged material evaluations to facilitate early coordination and to ensure each agency is aware of points in the process where communication and/or information exchange is required. The RIA contains lists of contaminants of concern of general application to the Louisiana coast. It addresses the implementation of a tiered testing framework specifying preferred test methods; procedures for collecting and storing samples of water and sediment for use in testing; specific benthic and water column test species to be used; required method detection limits; decision values to be used; and procedures for interpreting bioaccumulation results to make Tier III and Tier IV decisions. Locations of established reference sites also are included in the RIA.

In accordance with Part 225 of the Ocean Dumping Regulations, prior to the discharge of dredged material into the ODMDS-West the USACE, NOD must evaluate the proposed discharge in accordance with the criteria set forth in Part 227. The RIA requires that the information listed below be submitted by USACE, NOD to EPA, Region 6 at least 3 months before the advertisement date for the proposed maintenance event. When government dredges will perform maintenance, the information must be submitted at the beginning of the fiscal year or at least 3 months before anticipated dredging. After receiving the required information, EPA,

Region 6 will make an independent evaluation of the proposed discharge in accordance with the criteria within 15 working days. EPA, Region 6 must inform USACE, NOD in writing whether or not the proposed discharge complies with the criteria. If EPA determines that the proposed discharge complies with the criteria, the USACE, NOD may proceed. If EPA determines that the proposed discharge does not comply with the criteria, ocean disposal of the dredged material is prohibited unless procedures for invoking economic impact are followed in accordance with 40 CFR Part 225.3 and EPA, Region 6 grants a waiver pursuant to 40 CFR Part 225.4.

Information provided to EPA, Region 6 prior to the discharge of dredged material into the ODMDS will include the following:

a. Dredging project information. The proposed dredging project will be described to include:

- 1) large scale map showing the location of the project
- 2) the project plan drawing, design depth, and advance maintenance and allowable over-depth
- 3) estimated extent of shoaling
- 4) interruption or changes in standard operations resulting from shoaling
- 5) the anticipated type of dredging and disposal vessel
- 6) anticipated start date and duration of the disposal operation
- 7) estimated volume and area to be dredged
- 8) estimated disposal quantities
- 9) work details as described in the specifications of the dredging contract
- 10) a short description of the last dredging performed (e.g. maintenance projects), including location of placement of material at the ODMDS

b. Characterization of material from dredging site. The dredged material proposed for discharge is characterized based on one of the following:

- 1) Existing Information, Tier I. At a minimum, a Tier I evaluation is conducted for

every proposed dredging operation. If regulatory compliance can be established using existing information, an assessment of the existing information must accompany the compliance decision.

If using historical information, it is not necessary to resubmit the test results that have been previously submitted to EPA. However, the following information is provided and referenced: the date of the original submittal letter, title of the report, name of the consultant, date of the report and types of analyses performed (i.e. chemical, toxicity, bioaccumulation).

Other sources of data/information are referenced and/or included with the Tier I evaluation, including any spill reports, sediment quality databases, research reports, point-source discharge permit records, etc.

2) Exclusionary Criteria, Tier I. Information on the proposed dredging site, including sediment grain size, sediment chemistry and potential for contamination is needed to determine if the dredged material can be excluded from further testing pursuant to 40 CFR 227.13(b)(1), (2), or (3).

If one or more of the exclusionary criteria can be satisfied using existing information, a conclusive written evaluation must be presented to show that the proposed dredged material meets the exclusionary criteria. An assessment of the existing information is provided with the compliance decision.

If using historical information, it is not necessary to resubmit the test results that have been previously submitted to EPA. However, the following information is provided and referenced: the date of the original submittal letter, title of the report, name of the consultant, date of the report and types of analyses performed (i.e. chemical, toxicity, bioaccumulation).

3) New Data. If it is necessary to collect new sediment samples and conduct appropriate analyses to determine compliance with the ocean dumping regulations. The following information is provided with submittal of new data:

- a) A copy of the site-specific sampling and analysis plan (SAP).
- b) A description of the sampling survey, including the following: dates, sampling devices used, compositing procedure, and the location of the sediment sampling stations for each dredging area and reference site station by a) latitude and longitude determined by Global Positioning System, and b) in general terms (e.g. by channel marker, buoy number or significant landmarks).
- c) Copies of the test results conducted according to the site-specific sampling plan in a standard electronic format and/or report/hard-copy format. These test results include data for all tests at all tiers (physical, chemical, and/or biological), and the laboratory(s) performing the tests.

c. Regulatory compliance evaluation. An evaluation including a written discussion of the following subparts and sections of the Ocean Dumping Regulations:

- 1) Part 227 Subpart B - Environmental Impact
 - a) 227.1 Applicability
 - b) 227.4 Criteria for evaluating environmental impact
 - c) 227.5 Prohibited materials
 - d) 227.6 Constituents prohibited as other than trace contaminants
 - e) 227.9 Limitations on quantities of waste materials
 - f) 227.10 Hazards to fishing, navigation, shorelines or beaches
 - g) 227.13 Dredged materials
- 2) Part 227 Subpart C - Need for Ocean Dumping (all sections)
- 3) Part 227 Subpart D - Impact of the Proposed Dumping on Aesthetic, Recreational and Economic Values (all sections)
- 4) Part 227 Subpart E - Impact of the Proposed Dumping on Other Uses of the Ocean (all sections)
- 5) Part 227 Subpart G - Definitions (all sections)
- 6) Part 228 Section 228.4(e) - Dredged Material Permits

Dredged material from the Atchafalaya River bar channel was sampled and analyzed in accordance with the "1991 Green Book" in 1991 and in 1996. A Tier III evaluation consisting of physical analyses, bulk sediment analyses, water chemistry and elutriate analyses, and toxicity bioassays was conducted. The results of the analyses indicated that the dredged material proposed for discharge into the ODMDS-East was in compliance with the Ocean Dumping Criteria and was suitable for ocean disposal.

Although dredged material from the Atchafalaya River bar channel has been placed in the ODMDS-East annually since 1996, no additional sampling or analyses have been performed. Prior to each maintenance event, a Tier I evaluation has been conducted. Comprehensive analyses of existing and readily available information on the proposed dredged material,

including spill reports from the U.S. Coast Guard, National Response Center, indicated "no reason to believe" that the proposed discharges of dredged material were not suitable for ocean disposal.

The RIA states that "chemical and biological data greater than 5 years old may not be adequate to conduct evaluations"; however, USACE, NOD and EPA, Region 6, use best professional judgment in deciding when new chemical and biological data are needed. Dredged material will be sampled and analyzed prior to the initial use of the ODMDS-West.

6.0 ANTICIPATED SITE USE

Maintenance dredging of the Atchafalaya River bar channel is required on an annual basis and only dredged material from the navigation channel will be disposed into the ODMDS-West.

Dredged material removed using hydraulic cutterhead pipeline dredges will be discharged as a non-cohesive slurry through a floating pipeline into the ODMDS-West; dredged material removed by hopper dredges will be discharged by agitation and dredge and haul to the ODMDS-West. The dredged material generally is comprised of silty-clay with traces of sand (11% sand, 52% silt, 37% clay).

Dredging in the bar channel normally begins in January and continues through October; however, dredging is not continuous. Dredges may be assigned to the bar channel anytime between January and October to restore authorized channel dimensions. When a dredge is working in the bar channel, disposal operations will occur 24 hours a day, 7 days a week until authorized channel dimensions are restored.

It is anticipated that annual maintenance of the Atchafalaya River bar channel and disposal of dredged material into the ODMDS will continue in the future. During each maintenance event, from 6.9 to 9.2 million cubic meters (9.0 to 12.0 million cubic yards) of dredged material will be discharged into the ODMDS-West.

The USACE, NOD will select and use the proposed ODMDS-West under its Section 103 authority for a period of five years. The ERDC will monitor conditions in and adjacent to the Atchafalaya River bar channel during 2002 and possibly beyond. Details of the ERDC monitoring effort are included in section 8.0 MONITORING PROGRAM. In addition, the USACE, NOD will analyze dredging records and surveys of the ODMDS-West and the navigation channel to test the hypothesis that placement of dredged material from maintenance of the bar channel on the west side of the channel will decrease the shoaling rate and the frequency of maintenance dredging. If monitoring indicates that placement of dredged material into the ODMDS-West decreases the frequency and need for maintenance of the bar channel, the

USACE, NOD would request that the Environmental Protection Agency (EPA) designate the ODMDS-West pursuant to Section 102(c) for continuing use.

7.0 SPECIAL MANAGEMENT CONDITIONS OR PRACTICES

Special management conditions or practices applicable to the ODMDS-West include the following:

- a. When practicable and economically feasible, dredged material from the Atchafalaya River bar channel suitable for stacking will be discharged into a Section 404 disposal area for beneficial use to construct islands for colonial nesting seabirds and/or wetlands.
- b. All dredged material from the Atchafalaya River bar channel not suitable for stacking for beneficial use will be discharged within the designated boundary of the ODMDS-West.
- c. Only dredged material determined by USACE, NOD and EPA, Region 6 to satisfy the criteria set forth in 40 CFR Part 227 Subparts B, C, D, E, and G and part 228.4(e) of the Ocean Dumping Regulations will be considered for unrestricted placement at the ODMDS-West. Additional evaluation of management options will be required for any dredged material that does not meet the criteria.
- d. During disposal operations, a baffle plate will be positioned on the end of the discharge pipeline to ensure placement of dredged material within the designated boundary of the ODMDS-West.
- e. The discharge point within the ODMDS-West will be determined by the Government Inspector onboard the dredge during disposal operations. Depending on prevailing currents, the Government Inspector will direct discharge to ensure maximize retention time of dredged material within the ODMDS and minimize movement of dredged material into the navigation channel and/or off the ODMDS. The location of the discharge point(s), i.e., latitude and longitude coordinates, within the ODMDS-West will be recorded in the Daily Log.

8.0 MONITORING PROGRAM

8.1 ERDC Monitoring

The ERDC is monitoring the Atchafalaya River bar channel area as part of the Lower Atchafalaya River Fluff Study. The study, which commenced in January 2002 and will continue for a period of about one year, is designed to determine if the bar channel design and operation

can be optimized to reduce maintenance dredging volumes, costs and/or to improve project performance. Field investigations are focused on the suitability of disposal area location; transport conditions adjacent to and in the channel; and fluff/fluid mud conditions including density and grain size.

Water samplers, current meters, and wave gauges at six stations located on the east- and west-side of the bar channel will measure suspended sediment concentrations; current flow conditions; and waves. Acoustic surveys and current profile transects will be performed, and salinity and temperature profiles, mud samples, and suspended sediment samples will be collected in and near the channel throughout the study. Bed material will be collected outside the channel on each side in both the ODMDS-East and the ODMDS-West.

The field monitoring will provide information on the relative suitability of the ODMDS-East versus the ODMDS-West for disposal of dredged material and other indications of suitable disposal sites. If the monitoring indicates that placement of dredged material in the ODMDS-West will decrease the likelihood that dredged material would return to the navigation channel, the USACE, NOD will ask the EPA to designate the ODMDS-West pursuant to Section 102(c) for continuing use.

8.2. USACE, NOD Monitoring

Section 102(c) of the MPRSA, as amended by WRDA 1992, and Part 228 of the Ocean Dumping Regulations establish the requirement for an ODMDS monitoring program. Section 228.9 states that the primary purpose of a monitoring program is to evaluate the impact of disposal on the marine environment by referencing the monitoring results to a set of baseline conditions. The results of a monitoring program are used to determine if site management practices need to be changed to avoid unreasonable degradation of the marine environment.

The baseline conditions described in Environmental Assessment # 348, "ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF, AND BLACK, LOUISIANA, CONSTRUCTION OF ADVANCED MAINTENANCE TEST SECTION AND ADDITIONAL DISPOSAL AREAS IN ATCHAFALAYA RIVER BAR CHANNEL," prepared by the USACE, NOD in March, 2002 will serve as the main body of baseline data for the monitoring of impacts associated with the use of the Atchafalaya River Bar Channel ODMDS-West.

The Atchafalaya River Bar Channel ODMDS-East has been used historically without significant environmental impacts. The site is dispersive in nature, and no resources or amenities of concern that could be impacted by dredged material disposal at the ODMDS have been identified. The ODMDS-West also is dispersive in nature. To ensure that persistent mounding is not occurring as a result of disposal of dredged material into the ODMDS-West, hydrographic

monitoring will be performed at and adjacent to the site pre- and post-disposal. If the post-disposal survey indicates either mounding greater than 5.0 feet above pre-disposal elevation has occurred within the site or mounding greater than 12 inches above pre-disposal elevation has occurred off the site, a subsequent hydrographic survey will be conducted prior to the next disposal event to ensure that dispersion of the previously deposited sediments has occurred. If this hydrographic survey indicates that the sediments have dispersed, no further action is necessary. However, should the survey indicate that mounding persists, USACE, NOD and EPA, Region 6 will determine management actions appropriate to the site to alleviate sediment mounding in subsequent disposal events.

9.0 SITE MANAGEMENT PLAN REVIEW AND REVISION

Pursuant to Section 102(c) of the MPRSA, as amended WRDA 1992, the site management plan for the Atchafalaya River Bar Channel ODMDS-West will be reviewed and revised, if necessary, if the USACE, NOD determines that placement of dredged material in the ODMDS-WEST decreases the frequency and need for maintenance of the bar channel and requests that the EPA designate the site pursuant to Section 102(c) for continuing use. Modifications or updates to the site management plan may be proposed by either the USACE, NOD or EPA, Region 6. The modification may be incorporated into the plan by mutual consent of both agencies.

William B. Hathaway
Director
Water Quality Protection Division
Region 6
Environmental Protection Agency

Date

R. H. Schroeder, Jr.
Chief, Operations Division
New Orleans District
U.S. Army Corps of Engineers

Date

PN Comments



United States
Department of
Agriculture

Natural Resources
Conservation Service

3737 Government Street
Alexandria, Louisiana
71302

February 7, 2002

Mr. P. J. Serio
U.S. Army Corps of Engineers
Regulatory Branch
P. O. Box 60267
New Orleans, Louisiana 70160-0267

Dear Mr. Serio:

Re: PROPOSED CONSTRUCTION OF ADVANCE MAINTENANCE TEST
SECTIONS IN ATCHAFALAYA RIVER BAR CHANNEL & SELECTION
OF ADDITIONAL DISPOSAL SITES FOR BENEFECIAL USE OF
DREDGED MATERIAL
CEMVN-OD-T
ST. MARY AND TERREBONNE PARISHES

Thank you for providing our agency with the opportunity to respond to your letter dated December 21, 2002, wherein you requested views and comments on the above project.

NRCS has no objection to this project and it does not appear that it will impact any of our work in the immediate area.

Should you have questions regarding the above comments, please feel free to contact Gene Loupe, District Conservationist in the Thibodaux Field Office, at (985) 447-3871.

Sincerely,

E. J. Giering III, P.E.
State Conservation Engineer

cc: Gene Loupe, District Conservationist, Thibodaux FO



DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT, CORPS OF ENGINEERS

P.O. BOX 60267

NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

February 15, 2002

Operations Division
Technical Support Branch

Mr. Russell C. Watson
Acting Field Supervisor
U.S. Fish and Wildlife Service
Suite 400
646 Cajundome Boulevard
Lafayette, Louisiana 70506

Dear Mr. Watson:

Reference is made to your January 23, 2002 letter in response to the New Orleans District's (NOD) public notice for the proposed construction of advanced maintenance test sections in the Atchafalaya River bar channel; the proposed designation of a disposal area pursuant to Section 404 of the Clean Water Act on the west side of the bar channel; and proposed selection of an ocean dredged material disposal site pursuant to Section 103 of the Marine Protection, Research and Sanctuaries Act on the west side of the bar channel.

You recommend that the material removed during construction of the two proposed advanced maintenance test sections closest to the existing Sec. 404 disposal area on the east side of the bar channel be placed into that area. You also recommend that the NOD continue to place dredged material from future maintenance events into that disposal area until the planned initial stacking height of +8.0 feet Mean Low Gulf is reached.

We considered placing all the dredged material to be removed from the proposed advanced maintenance test sections into the proposed Section 404 disposal area on the west side of the channel. The incremental costs for doing so are provided as an attachment to this letter (Note that these costs assume that dredging would take place during the summer and do not include the cost for maintenance dredging). The cost for placing the material into the existing Section 404 disposal area on the east side of the channel would be the same. The cost of placing dredged material into the proposed disposal sites on the west side of the channel, i.e., the base plan or Federal Standard, is \$ 8,500,000.00. As you can see from the attached incremental cost analysis, the cost to place the dredged material from the two closest proposed advanced maintenance test sections into the proposed Section 404 disposal area or the existing Section 404 disposal area would be an additional \$ 4,958,100.00. We consider this increase in cost prohibitive.

The NOD also considered the continued placement of dredged material suitable for stacking in the existing Section 404 disposal area on the east side of the channel while placing the remainder of the material removed from the bar channel into the proposed ODMDS on the west side of the channel. We decided against this until we can determine conclusively that dredged material placed on the east side of the channel into the existing disposal areas is not being transported back into the channel. We anticipate that the ongoing studies by the Engineer Research and Development Center at Vicksburg, MS, will enable us to make that determination in the near future.

Thank you for your participation in planning the proposed project. If you have additional comments, please contact me at (504) 862-2318.

Sincerely,

A handwritten signature in black ink, reading "Linda G. Mathies". The signature is written in a cursive style with a large, stylized "L" and "M".

Linda G. Mathies
Chief, Environmental Function

Attachment

Project: Atchafalaya River and Bayous Chene, Boeuf, and Black
 Advance Maintenance Test Sections,
 Atchafalaya Bar Channel, C/L Sta 716+00 - C/L Sta 776+00
 St. Mary Parish, Louisiana OPTION 0001

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
0001	Mobilization and Demobilization	1	LS	\$1,265,400.00	\$1,265,400.00
0002	Dredging C/L Sta. 716+00 to C/L Sta. 776+00	350,000	CY	\$4.12	\$1,442,000.00

TOTAL: \$2,707,400.00

(does NOT include CONTINGENCIES)

CONTRACT DURATION: 90 days

upper test section

Project: Atchafalaya River and Bayous Chene, Boeuf, and Black
Advance Maintenance Test Sections,
Atchafalaya Bar Channel, C/L Sta 716+00 - C/L Sta 776+00
C/L Sta 796+00 to C/L Sta 856+00
St. Mary Parish, Louisiana OPTION 0002

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
0001	Mobilization and Demobilization	1	LS	\$1,717,100.00	\$1,717,100.00
0002	Dredging C/L Sta. 716+00 to C/L Sta. 776+00 and C/L Sta. 796+00 to C/L Sta. 856+00	700,000	CY	\$4.63	\$3,241,000.00

TOTAL: \$4,958,100.00

CONTRACT DURATION: 120 days

(does NOT include CONTINGENCIES)

1st & 2nd test section

Project: Atchafalaya River and Bayous Chene, Boeuf, and Black
Advance Maintenance Test Sections,
Atchafalaya Bar Channel, C/L Sta 716+00 - C/L Sta 776+00
C/L Sta 796+00 to C/L Sta 856+00
C/L Sta 876+00 to C/L Sta 936+00
St. Mary Parish, Louisiana OPTION 0003

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
0001	Mobilization and Demobilization	1	LS	\$2,053,500.00	\$2,053,500.00
0002	Dredging C/L Sta. 716+00 to C/L Sta. 776+00 and C/L Sta. 796+00 to C/L Sta. 856+00 and C/L Sta. 876+00 to C/L Sta. 936+00	1,050,000	CY	\$5.13	\$5,386,500.00

TOTAL: \$7,440,000.00

CONTRACT DURATION: 165 days

(does NOT include CONTINGENCIES)

14243

Project: Atchafalaya River and Bayous Chene, Boeuf, and Black
Advance Maintenance Test Sections,
Atchafalaya Bar Channel, C/L Sta 716+00 - C/L Sta 776+00
C/L Sta 796+00 to C/L Sta 856+00
C/L Sta 876+00 to C/L Sta 936+00
C/L Sta 956+00 to C/L Sta 1016+00
St. Mary Parish, Louisiana OPTION 0004

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
0001	Mobilization and Demobilization	1	LS	\$2,387,000.00	\$2,387,000.00
0002	Dredging C/L Sta. 716+00 to C/L Sta. 776+00 and C/L Sta. 796+00 to C/L Sta. 856+00 and C/L Sta. 876+00 to C/L Sta. 936+00 and C/L Sta. 956+00 to C/L Sta. 1016+00	1,400,000	CY	\$6.04	\$8,456,000.00

TOTAL: \$10,843,000.00

CONTRACT DURATION: 210 days

(does NOT include CONTINGENCIES)

1424344



United States Department of the Interior

FISH AND WILDLIFE SERVICE

646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

January 23, 2002

DAW
1/31/02

David F. Carney
Chief, Environmental Planning and
Compliance Branch
U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Mr. Carney:

The U.S. Fish and Wildlife Service (Service) has reviewed the Public Notice for the proposed construction of advanced maintenance test sections in the Atchafalaya River bar channel and the proposed selection of additional dredged material disposal sites in St. Mary Parish, Louisiana. The Service has reviewed the information provided and submits the following comments in accordance with provisions of the National Environmental Policy Act of 1969 (83 Stat. 852, as amended; 42 U.S.C. 4321- 4347), the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), and the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

According to the Public Notice, the Corps of Engineers (Corps) has proposed to construct 5 advanced maintenance test sections to a depth of -28 feet Mean Low Gulf (MLG) (i.e., 4 feet deeper than the currently maintained depth) in the portion of the bar channel with the most rapid shoaling rate. The information generated by the proposed test sections and monitoring of the subsequent shoaling rates in those sections would determine if increased advanced maintenance would reduce the current need for frequent maintenance dredging. The Corps has also proposed to designate an additional open-water disposal area for the beneficial use of dredged material and an additional ocean dredged material disposal site (ODMDS) to accommodate the spoil from the test sections. Both of those proposed disposal sites would be located on the west (right-descending) bank of the navigation channel because of concerns that dredged material placed into the existing disposal areas on the east (or left-descending bank), and particularly the ODMDS, is transported back into the navigation channel by littoral currents.

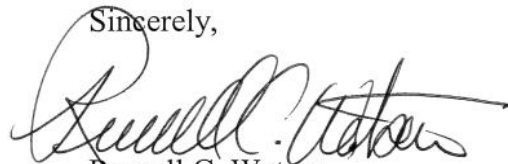
In general, we support the Corps' proposed plan for advanced maintenance test sections and relocating the disposal areas. We believe, however, that beneficial use of spoil should be completed in the existing beneficial use disposal site on the left-descending bank. The Corps has been placing dredged material at that location since 1992 to construct islands for colonial nesting

seabirds. Because suitable material for stacking is limited in the bar channel, it has taken 10 years for one island to become subaerial. That island currently shows signs of erosion and would likely disappear if disposal on that island is discontinued before the planned initial stacking height of +8 feet MLG is achieved. Accordingly, we recommend that the Corps place dredged material from (at least) the two closest proposed advanced maintenance test sections (i.e., test section stations 716+00 to 776+00 and 796+00 to 856+00) on that island to increase its potential for long-term stability. The dredged material from the proposed test sections (i.e., material dredged from -24 to -28 feet MLG) should be suitable for stacking due to a higher clay content, and thus, would not likely be transported back into the channel. We understand that the Corps' main concern is the return of the "fluff" or fluid mud into the channel after disposal in the existing ODMDS; that concern does not apply to spoil disposal on the island. Accordingly, we also recommend that the Corps continue to place dredged material that is suitable for stacking on the island during future maintenance events until the planned initial stacking height for that island is achieved. Subsequently, the Corps could begin using the proposed beneficial use disposal site on the right-descending bank of the channel. We support the Corps' plan to place dredged material from the remaining test sections and material that is unsuitable for stacking from future maintenance events into the proposed ODMDS on the right-descending bank of the navigation channel.

Consistent with our previous correspondence, we reiterate that threatened and endangered sea turtles forage in the nearshore waters, bays and sounds of Louisiana. The National Marine Fisheries Service is responsible for aquatic marine threatened or endangered species. Please contact Eric Hawk (727/570-5312) in St. Petersburg, Florida, for information concerning these species.

We appreciate the opportunity to provide comments in the planning stages of this proposed project. Should you have any questions regarding our comments, please contact Joyce Mazourek (337/291-3112) of this office.

Sincerely,

A handwritten signature in black ink, appearing to read "Russell C. Watson", written over a horizontal line.

Russell C. Watson
Acting Field Supervisor

cc: NMFS, Baton Rouge, LA
EPA, Dallas, TX
Louisiana Department of Wildlife and Fisheries, Baton Rouge, LA
Louisiana Department of Natural Resources, Baton Rouge, LA



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9721 Executive Center Drive North
St. Petersburg, Florida 33702

January 9, 2002

F/SER44/RH:jk
225/389-0508

Colonel Thomas F. Julich
District Engineer, New Orleans District
Department of the Army, Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160


Dear Colonel Julich:

The National Marine Fisheries Service (NMFS) has received the Public Notice titled "**CEMVN-OD-T (Atchafalaya River and Bayous Chene, Boeuf, and Black, LA)**" dated December 21, 2001. The New Orleans District (NOD) proposes to construct advanced maintenance sections in the Atchafalaya River bar channel to determine if increased advanced maintenance would provide a more reliable channel and reduce the problem of fluid mud that presently is adversely impacting navigation. The NOD also proposes to designate an additional disposal area in the Ocean Dredged Material Disposal Site to determine if placement of spoil west of the bar channel would reduce the frequency of maintenance dredging.

The NMFS has reviewed the information provided in the public notice and determined that the proposed advanced maintenance dredging and designation of disposal sites would have minimal impacts on essential fish habitat or associated fishery resources. Therefore, we do not object to the activities proposed in the public notice.

We appreciate the opportunity to review and comment on this proposal

Sincerely,

 Andreas Mager, Jr.
Assistant Regional Director
Habitat Conservation Division

c:
F/SER4
Files



Printed on Recycled Paper



PN



DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT, CORPS OF ENGINEERS

P.O. BOX 60267

NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

December 21, 2001

CEMVN-OD-T (Atchafalaya River and Bayous Chene, Boeuf, and Black, LA)

PUBLIC NOTICE

PROPOSED CONSTRUCTION OF ADVANCED MAINTENANCE TEST SECTIONS IN ATCHAFALAYA RIVER BAR CHANNEL AND SELECTION OF ADDITIONAL DISPOSAL SITES FOR BENEFICIAL USE OF DREDGED MATERIAL AND OCEAN DISPOSAL OF DREDGED MATERIAL

Interested parties are hereby notified that the U. S. Army Engineer District, New Orleans (NOD), proposes to construct advanced maintenance test sections in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, navigation project; to designate an additional open water site pursuant to Section 404 of the Clean Water Act (CWA) of 1977 for the beneficial use of dredged material removed from the bar channel; and to select an additional ocean dredged material disposal site (ODMDS) pursuant to Section 103(b) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for dredged material removed from the bar channel.

Designation of the proposed open water disposal site involves placement of dredged material for fill into inland waters and selection of the proposed ocean dredged material disposal site may involve transportation of dredged material for the purpose of disposal in ocean waters. Therefore, the provisions of Title 33 CFR Parts 209, and 335-338, effective 26 April 1988, are applicable and issuance of this public notice is required.

PROJECT AUTHORITY: Construction and maintenance of this 54-mile-long navigation channel was authorized by the Rivers and Harbors Act of 1968, House Document 155, 90th Congress, 1st Session, which provides for the following plan of improvement:

a) a channel 20 feet deep over a bottom width of 400 feet from the vicinity of the U.S. Highway 90 crossing over Bayou Boeuf to the Gulf of Mexico via the Gulf Intracoastal Waterway (GIWW), Bayou Chene, the Avoca Island-Cutoff Bayou drainage channel, the Lower Atchafalaya River, and the existing project across Atchafalaya Bay to the 20-foot-depth contour in the Gulf of Mexico. The channel width in Bayou Boeuf is reduced to 300 feet where necessary because of industrial development on both sides of the bayou.

b) a 20-foot-deep by 400-foot-wide channel in Bayou Black and the GIWW from the major shipyard on Bayou Black at U.S. Highway 90 to Bayou Chene.

Construction of the inland portions of Bayous Boeuf and Black was completed in June 1978. Construction of the Bayou Chene and Avoca Island-Cutoff reach was completed in September 1981. The navigation channel is maintained to project dimensions of -24 feet Mean Low Gulf (2 feet of advanced maintenance plus 2 feet of allowable over-depth) by 400 feet (Figure 1).

PROJECT PURPOSE: The Final Environmental Impact Statement (FEIS), Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana; the Final Supplement to the FEIS, Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana; and a Supplemental Information Report, Atchafalaya River and Bayous Chene, Boeuf, and Black, assessed the impacts of operation and maintenance of the authorized navigation channel to a depth of 20 feet with 2 feet of advanced maintenance and 2 feet of allowable overdepth from the U.S. Highway 90 crossing over Bayou Boeuf to the Gulf of Mexico via the Gulf Intra-coastal Waterway, Bayou Chene, Avoca Island Cutoff, the Lower Atchafalaya River, and across Atchafalaya Bay to the Gulf of Mexico. Historically, the navigation channel has been maintained to a depth of -24 feet (20 feet deep with 2 feet advanced maintenance and 2 feet of allowable overdepth).

Currently, the presence of “fluff” or fluid mud (terms used interchangeably herein) in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, navigation project has made it difficult to provide a reliable, navigable -20-foot channel through the bar. The “fluff” returns to the channel within weeks after maintenance dredging is complete and interferes with the passage of certain types of vessels to the Port of Morgan City.

The NOD has committed to more frequent maintenance dredging in the bar channel to alleviate the “fluff” problems. The NOD also has tasked the Engineering Research and Development Center (ERDC) to conduct studies in the bar channel and make recommendations for a permanent resolution of the fluid mud issue. The ERDC studies are designed to determine the fate of dredged material placed into the existing ODMDS; to investigate alternative locations for the Atchafalaya River bar channel ODMDS; to determine if deepening the bar channel would alleviate the “fluff” problem; to recommend special survey techniques to identify fluid mud layers; to determine if sectional advanced maintenance would provide shoal storage and make the deepened portion of the channel more hydraulically efficient; and to investigate non-traditional channel training works to increase sediment transport capacity and reduce the annual shoaling volume.

In response to a proposal from the ERDC, the NOD proposes to construct five (5) advanced maintenance test sections in the bar channel in that portion of channel with the most rapid shoaling rate. The test sections would be constructed to a depth of -28.0 feet Mean Low Gulf (MLG), i.e., 4 feet below the currently maintained depth of -24 feet MLG. Construction of the proposed test sections and monitoring of shoaling rates in the sections would test the hypothesis that increased advanced maintenance would provide a more reliable channel for a longer period of time between maintenance events.

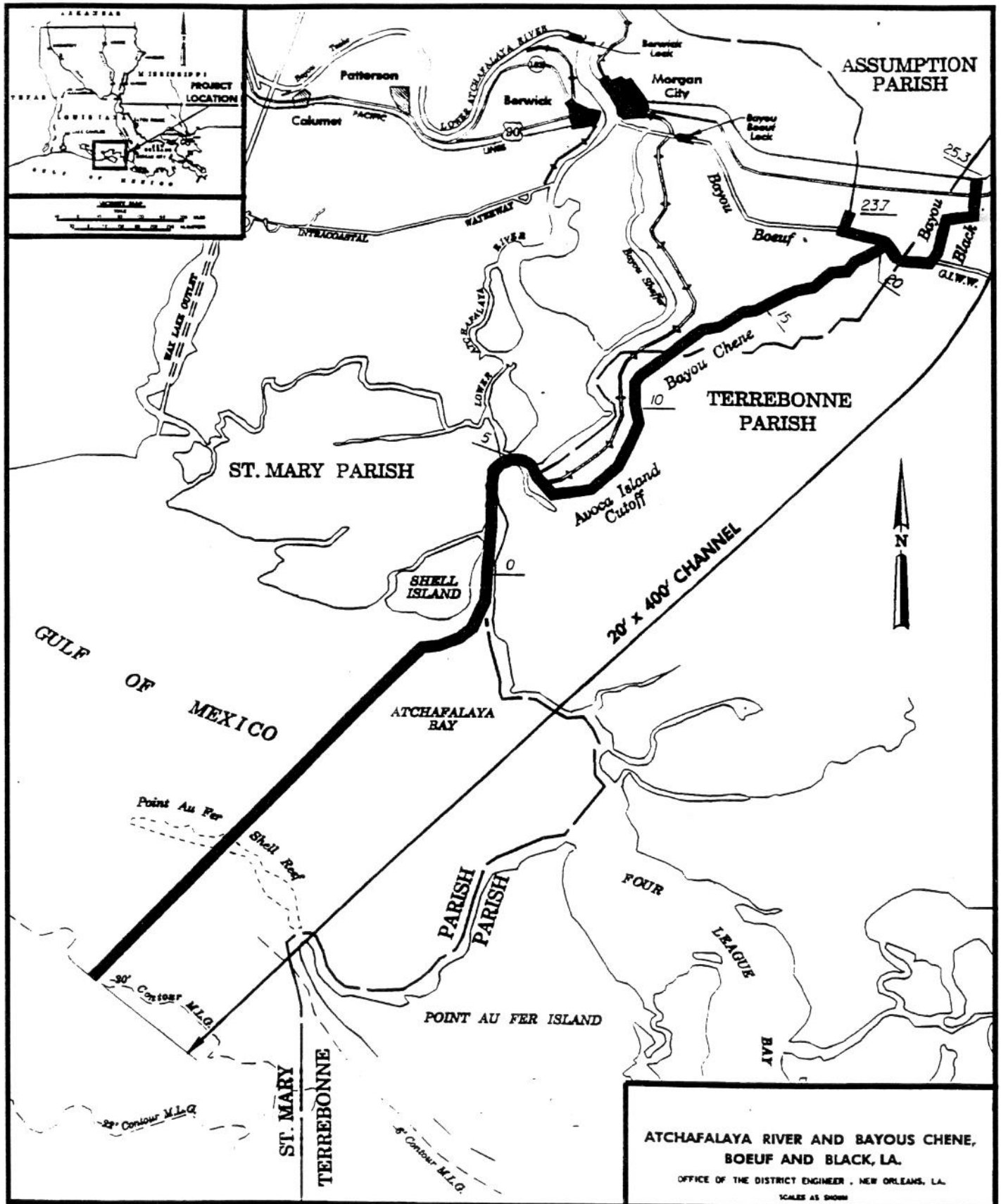


Figure 1

The NOD also is proposing selection and designation of additional disposal sites on the west or right-descending bank of the bar channel in response to concerns that dredged material placed on the east or left-descending bank of the channel, and in particular into the existing ODMDS, is being transported back into the navigation channel by prevailing littoral currents. The NOD would select and use the proposed ODMDS under its Section 103 authority for five years and would designate and use the Section 404 site for the same period. The ERDC and the NOD would analyze dredging records and surveys of the ODMDS and the navigation channel to test the hypothesis that placement of dredged material from maintenance of the bar channel on the west side of the channel will decrease the shoaling rate and the frequency of maintenance dredging. If monitoring indicates that placement of dredged material on the west side/right-descending bank of the bar channel decreases the frequency and need for maintenance of the bar channel, the NOD would request that the Environmental Protection Agency (EPA) designate the proposed Section 103 site pursuant to Section 102 (c) for continuing use.

PROPOSED ACTION: Five (5) advanced maintenance test sections would be constructed in the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana, project between C/L Station 716+00 and C/L Station 1086+00 (Figure 2). The test sections would be approximately 2000 feet apart and would be constructed to a depth of -28 feet MLG. The four (4) test sections on the upper end of the bar channel would be 6000 feet in length; the fifth test section would be 5000 feet in length. Test sections would be 375 feet wide, slightly narrower than the authorized width of the navigation channel, to allow continuous side slopes of about 1:3 and to avoid de-stabilizing the slopes. Approximately 1,680,000 cubic yards of dredged material would be removed during construction of the proposed advanced maintenance test sections and would be placed into proposed disposal sites on the west or right-descending bank of the channel.

An additional Section 404 disposal area would be designated pursuant to Section 404 of the CWA and an additional ODMDS would be selected pursuant to Section 103(b) of the MPRSA. Both of the proposed disposal sites would be located on the west or right-descending bank of the navigation channel and would be used for the placement of dredged material removed from the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, project.

DISPOSAL SITES: The proposed Section 404 disposal site is rectangular-shaped, approximately 3.0 miles wide by 1.1 miles long, parallel to the Atchafalaya River bar channel and on the west side or right-descending bank. The site encompasses approximately 2200 acres of shallow open water. The inner limit of the proposed Section 404 disposal site is approximately 2640 feet from the centerline of the navigation channel (Figure 3).

Coordinates of the four corners of the proposed Section 404 disposal site are as follows:

29° 23' 14" N, 91° 26' 35" W
29° 21' 38" N, 91° 24' 14" W
29° 24' 02" N, 91° 25' 53" W
29° 22' 25" N, 91° 23' 32" W

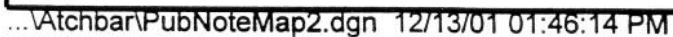
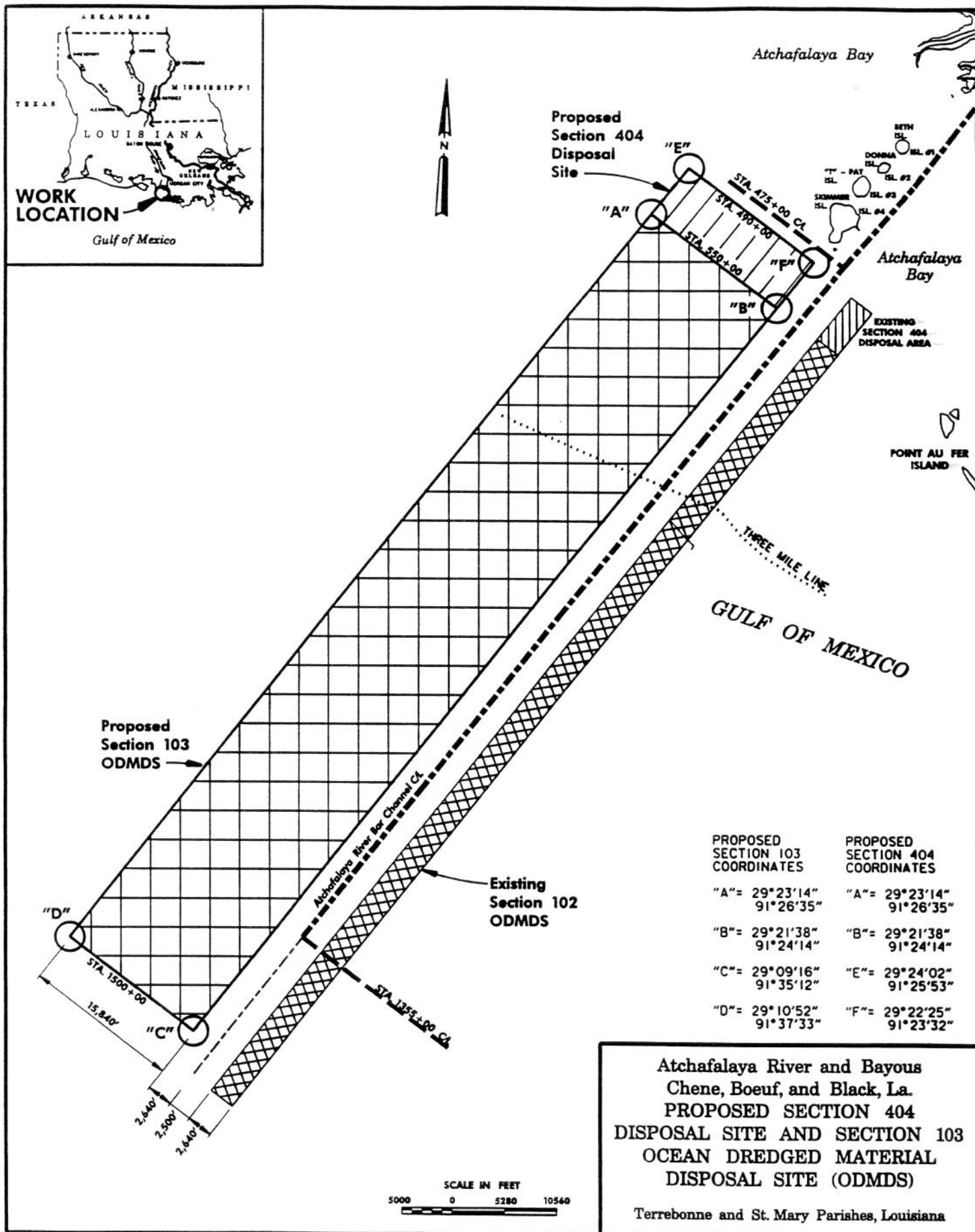


Figure 2



The proposed ODMDS is rectangular-shaped, approximately 3.0 miles wide by 18 miles long, parallel to the Atchafalaya River bar channel and on the west side or right-descending bank. The proposed site encompasses approximately 35,000 acres of open water. The inner limit of the proposed ODMDS is approximately 2640 feet from the centerline of the navigation channel (Figure 3).

Coordinates of the four corners of the proposed ODMDS are as follows:

29° 23' 14" N, 91° 26' 35" W
29° 21' 38" N, 91° 24' 14" W
29° 09' 16" N, 91° 35' 12" W
29° 10' 52" N, 91° 37' 33" W

The center of the proposed site is approximately 19 miles from the mainland coast. Soundings of the site range from approximately 6 to 21 feet MLG and its area is approximately 54 square miles.

HISTORICAL SITE USE: The existing Section 404 disposal site on the east or left-descending bank of the navigation channel has been used annually for placement of dredged material from maintenance of the Atchafalaya River bar channel since 1992. Only material suitable for stacking to construct islands for colonial nesting seabirds has been placed at the site. Historically, this has been the dredged material removed between C/L Station 475+00 and C/L Station 650+00. The quantity of dredged material placed into the site each year has ranged from 390,000 cubic yards to 2,998,774 cubic yards.

As an interim- and Section 102-designated ODMDS, the existing ODMDS on the east or left-descending bank of the navigation channel has been used annually except for 1978, 1980, and 1982 for the placement of material dredged from the Atchafalaya River bar channel. The quantity of dredged material discharged into the site each year has ranged from 1,000,000 cubic yards to 14,000,000 cubic yards. Discharge of dredged material into the site has had no apparent adverse environmental impacts outside the disposal site boundary.

ANTICIPATED SITE USE: Maintenance dredging of the Atchafalaya River bar channel is required on an annual basis and only dredged material from the navigation channel would be disposed into the proposed Section 404 disposal site and into the proposed ODMDS. Dredged material would be removed using hydraulic cutterhead pipeline dredges and would be discharged into the proposed Section 404 disposal site and into the proposed ODMDS as a non-cohesive slurry through a floating pipeline. The dredged material generally is comprised of silty-clay with traces of sand.

Dredges may be assigned to the bar channel anytime surveys indicate that shoaling has compromised the authorized navigation channel. When a dredge is working in the bar channel, disposal operations will occur 24 hours a day, 7 days a week until authorized channel dimensions are restored.

Dredged material would be placed into the proposed Section 404 disposal site unconfined and in a manner conducive to creation of islands for colonial nesting seabirds. The initial height of the dredged material disposal mounds would be no higher than +8.0 feet MLG. The optimum final grade area of the created islands would range from 5 to 25 acres depending on the particular assemblage of birds for which an island is created. The subaerial edges of the created islands would be at least 1000 feet apart. From 400,000 to 2,000,000 cubic yards of dredged material would be placed annually into the proposed Section 404 disposal site.

Dredged material would be discharged into the proposed ODMDS in a manner that would ensure that direct impacts of the disposal would be within the limits of the site. From 9,000,000 to 12,000,000 cubic yards of dredged material would be discharged annually into the proposed ODMDS.

It is anticipated that annual maintenance of the Atchafalaya River bar channel will continue in the future. Disposal of dredged material into the proposed Section 404 disposal site will continue until the site is filled. Disposal of dredged material into the proposed ODMDS would be limited to five years unless monitoring indicates that placement of dredged material into the site is adversely impacting the environment or other uses of the ocean, or the EPA designates the ODMDS for continuing use pursuant to Section 102 (c) of the MPRSA.

NEPA COMPLIANCE: An Environmental Assessment addressing the impacts of the proposed construction of the advanced maintenance test sections and of the selection and use of the proposed disposal sites pursuant to Section 404 of the CWA and Section 103(b) of the MPRSA will be prepared by the U.S. Army Engineer District, New Orleans.

STATE WATER QUALITY CERTIFICATION: Section 401 of the Clean Water Act necessitates state water quality certification for the proposed action. Application for certification will be made by the U.S. Army Engineer District, New Orleans.

COASTAL ZONE CONSISTENCY DETERMINATION: The U.S. Army Engineer District, New Orleans, will provide the Coastal Management Division, Louisiana Department of Natural Resources, a consistency determination for construction of the proposed advanced maintenance test sections and selection of the proposed ODMDS and the proposed Section 404 disposal site.

ENDANGERED SPECIES: The U.S. Army Engineer District, New Orleans, will consult the U.S. Fish and Wildlife Service and the National Marine Fisheries Service to determine the impact of selection of the proposed action on threatened or endangered species or critical habitat thereof.

ESSENTIAL FISHERIES HABITAT: The initial determination is that the proposed action will not have substantial impact on Essential Fish Habitat or Federally managed species in the Gulf of Mexico pursuant to provisions of the Magnuson-Stevens Fishery Conservation and Management Act. The environmental assessment will assess the impacts of the proposed action on Essential Fish Habitat and will include the required components of 50 CFR 600.920(g). The final

determination relative to impacts and the need for mitigation measures is subject to review by the National Marine Fisheries Service.

CULTURAL RESOURCES: A submerged cultural resources survey of the area that would be impacted by the proposed action may be conducted. The U.S. Army Engineer District, New Orleans will consult with the Louisiana State Historic Preservation Officer to assess the impact of the proposed action on cultural resources.

SECTION 404(b)(1) GUIDELINES: Placement of dredged material removed from the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, project into the proposed Section 404 disposal site would be made through application of guidelines promulgated by the Administrator, EPA, in conjunction with the Secretary of the Army. If these guidelines alone prohibit the placement of dredged material into the proposed disposal area, any impairment to the maintenance of navigation and anchorage that would result from failure to use the proposed disposal site also would be considered.

MARINE PROTECTION, RESEARCH, AND SANCTUARIES ACT: The U.S. Army Engineer District, New Orleans proposes to select the ODMDS on the west or right-descending bank of the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, LA, project pursuant to Section 103(b) of the MPRSA. The criteria and factors established in Section 102(a) of the MPRSA relating to site selection will be used in selecting the site in a manner consistent with the application of the factors and criteria pursuant to Section 102(c).

The proposed transportation of the dredged material for disposing of it in ocean waters also is being evaluated to determine that the proposed disposal will not unreasonably degrade or endanger human health, welfare, or amenities or the marine environment, ecological systems, or economic potentialities. In making this determination, the criteria established by the Administrator, EPA pursuant to Section 102(a) of the MPRSA, will be applied. In addition, based upon an evaluation of the potential effects which the failure to utilize this ocean disposal site will have on navigation, economic and industrial development, and foreign and domestic commerce of the United States, an independent determination will be made on the need to dispose of the dredged material in ocean waters, other possible methods of disposal, and other appropriate locations.

COORDINATION WITH FEDERAL, STATE, AND LOCAL AGENCIES: The following is a partial list of agencies with which the U.S. Army Engineer District, New Orleans will coordinate regarding the proposed action:

Environmental Protection Agency, Region 6

Regional Director, National Marine Fisheries Service

Regional Director, U. S. Fish and Wildlife Service

Commander, Eighth Coast Guard District

Louisiana Department of Wildlife and Fisheries

Louisiana Department of Environmental Quality

Louisiana Department of Natural Resources

Louisiana Department of Transportation and Development

PROJECT PLANS: Plans for the proposed work will be on file in the Office of the District Engineer, U.S. Army Engineer District, New Orleans, Foot of Prytania Street, New Orleans, Louisiana, 70660-0267, and may be reviewed by anyone having interest in them.

PUBLIC INVOLVEMENT: Interested persons may submit comments on the proposed action or suggest modifications. All comments received within 30 days of the date of this notice will be considered.

Any person who has an interest that may be affected by the disposal of this dredged material may request a public hearing. The request must be submitted in writing to the District Engineer within the comment period of this notice and must clearly set forth the interest that may be affected and the manner in which the interest may be affected by this activity.

You are requested to communicate the information contained in this public notice to any parties who may have an interest in the proposed action.

ADDITIONAL INFORMATION: Additional information may be obtained by writing to: District Engineer, U. S. Army Engineer District, New Orleans, ATTN: CEMVN-OD-T/ Dr. Linda G. Mathies, Post Office Box 60267, New Orleans, Louisiana 70160-0267. Dr. Mathies also can be reached at (504) 862-2318.

Robert H. Schroeder, Jr.
Chief, Operations Division

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